The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1731.—Vol. XXXVIII. LONDON, SATURDAY, OCTOBER 24, 1868. {STAMPED .. SIXPENCE, UNSTAMPED..FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER,
No. 1, FINCH LANE, CORNHILL.
(Established 1842.)

HOLDERS of mining shares difficult of sale in the open market may find purchasers for the same through Mr. CROFTS' agency. Also parties requiring advice how to act in the disposal or abandonment of doubtful mining stocks may profitably avail of Mr. CROFTS' long experience on the market in all cases of doubt or difficulty, legal or otherwise.

CHIVERTON from £7 have receded to £5. SPECIAL BUSINESS in the shares.

The present is a very favourable time to buy mining shares, either for investment or speculation, as the market is on the eve of a great improvement. A list of good and sound shares to buy will be forwarded on application.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET, has FOR SALE the following shares, free of commission :—

50 Australian United (Gold), 17s.	15 Frank Mills, £4 5s.	20 Prosper United, 18s.
60 Carn Camborne, 14s 3	100 Frontino, 16s. 3d.	5 Port Phillip, £1 12s 9
25 Chiverton, £4¼.	10 Great Laxey, £20.	45 Royalton, 23s.
15 Chiv. Moor, £6 11s 3d	30 Gt. No. Downs, £2 8 9	35 Redmoor, 6s. 3d.
50 Chontales, £2 16s 3d	15 Gt. Retallack, £2 16 3	50 So. Condurrow, 7s.
1 Devon Gt. Con., £360.	10 Great Vor, £13¼.	10 St John del Rey, £18¼
30 Drake Walls, 17s. 9d.	3 Herodsfoot, £43½.	1 South Caradon, £345.
50 Don Pedro.	20 Hingston Down, 7s 6d	5 Tincroft, £14¾.
20 E. Rosewarne, 5s. 6d.	50 Lovell Consols, 16s.	2 West Tolgus, £45.
50 E. Carn Brea, 8s.	25 Marke Valley, £8¾.	50 W. Pr. of Wales, 8s 6d
35 East Grenville, £4 3 9	55 No. Treskerby, 12s 3d	5 West Chiver., £62.
20 East Caradon, £4 17 6	30 North Crofty, 32s 6d.	1 W. Wh. Seton, £175.
50 East Bottle Hill, 5s 3d	25 New Wh. Lovell, 19s.	50 W. Wh. Kitty, 9½
	50 Prince of Wales, 37s 6	50 Wt. Drake Walls, 9s 3
	50 Princess of Wales, 5s 3	

MR. WILLIAM WARD,
STOCK AND SHAREDEALER,
No. 29, THREADNEEDLE STREET, LONDON, E.C.

MESSRS. WILSON, WARD, AND CO.,
STOCK AND SHAREDEALERS,
16, UNION COURT, OLD BROAD STREET, LONDON, E.C.
BUYERS of New Great Consols shares.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER, 19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RISLEY, (SWORN) STOCK AND SHAREBROKER, 48, THREADNEEDLE STREET, LONDON, E.C.

Business transacted in the British Funds, Railway and other Stocks, Foreign Bonds, &c., on the usual commission, 1¼ per cent. on mining and other shares, above £2; and at £2 and under 6d. per share.

EAST WHEAL GRENVILLE MINE is likely to prove a great prize. Shareholders are recommended to hold on their shares, which are in demand at £2 15s.

Bankers: London and Westminster, Lothbury.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, and MINING EXCHANGE.

Mr. HUME can recommend shares which are certain to rise 200 to 300 per cent.

Mr. H. sends a daily list of stocks and shares to subscribers.

WHEAL MARY FLORENCE.—Full particulars of this rising mine on application to Mr. HUME. Every description of share negociated.

Bankers: The London Joint-Stock Bank.

BARTLETT AND CHAPMAN, STOCK AND SHAREDEALERS, 2, BUCKLERSBURY, LONDON, E.C.

ROYALTON shares are good to purchase at present price. The report from the mine is highly satisfactory.

LOVELL CONSOLS.—The agents report that the lode in the 12 fm. level has improved, and will now produce peach, prian, and tin; another week will, no doubt, lay open a valuable run of tin. These shares should be secured at once as they are certain to advance. Full particulars forwarded on application, with plans of the district.

GREAT SOUTH CHIVERTON.—The general meeting, held on Thursday, passed off satisfactorily. The managers report gave a detailed account of the prospects, which will be found, with particulars of the meeting, in another column. These shares are, without a doubt, the cheapest in the market; and, directly the lead is met with in the 50 west shares must have a considerable advance in price.

BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR" should be consulted by all who wish to reap large profits in a short time. Post free on application. Bankers: London and Westminster.
2, Bucklersbury, London, E.C.

Established Fourteen Years.

MESSRS. WARD AND JACKMAN,
STOCK AND SHAREDEALERS,
No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.
Members of the Exchange.
Closing prices, Friday Evening, Oct. 23.

Anglo-Brazilian	8s 9d	to £ ¼	Providence	£25	„ £27
Carn Brea	£ 17½	„ 20	Port Phillip	1½	„ 1¾
Chontales	2¾	„ 3	Rossa Grande (prem.).	6s 3d	„ 8s 9d
Chiverton	4	„ 4½	South Condurrow	¾	„ ⅞
Chiverton Moor	6½	„ 7	St. John del Rey	17½	„ 18½
Cook's Kitchen	11½	„ 12	Tincroft	14½	„ 15
Don Pedro ....(prem.)	2¾	„ 3	West Basset	¾	„ 1
Drake Walls	⅞	„ 1	West Chiverton	61	„ 62
East Caradon	4½	„ 5	West Drake Walls	7s	„ 9s
East Grenville	3⅞	„ 4¼	West Prince of Wales..	7s	„ 9s
Frank Mills	3¼	„ 3¾	West Wh. Frances....	30	„ 32½
Frontino and Bolivia..	¾	„ ⅞	West Wheal Seton	160	„ 170
Great Laxey	19	„ 20	Wheal Basset	65	„ 67½
Great North Laxey ..	3⅜	„ 5⅜	Wheal Em. Henrietta.	27	„ 29
Great Retallack	2⅞	„ 3⅛	Wheal Grenville	1½	„ 1¾
Great Wheal Vor	12¾	„ 13¼	Wh. Kitty (St. Agnes)	3½	„ 4
Herodsfoot	42½	„ 45	Wheal Margaret	4½	„ 5½
Marke Valley	8½	„ 9	Wheal Mary Ann	17	„ 18
North Treskerby.....	⅜	„ ½	Wheal Seton.....	47½	„ 52½
North Wheal Crofty ..	1⅜	„ 1⅝	Wheal Uny	3	„ 3½
Prince of Wales	36s	„ 38s	Yudanamutana	2	„ 2¼

Messrs. WARD and JACKMAN are DEALERS in all the above at the close market prices of the day.

Messrs. WARD and JACKMAN will forward a correct list of closing prices and statistical information GRATUITOUSLY on application.

Oct. 23. Bankers: London and Westminster, Lothbury.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S, BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the FOLLOWING SHARES, at nett prices :—

50 Anglo-Brazil., 9s. 9d.	5 Great Laxey, £19½.	50 Tamar Valley.
20 Chontales, £2 16s.	20 Gt. No. Laxey, 10s 6d	5 Tincroft, £15⅛.
20 Chiverton, £3 19s.	15 Great Retallack, £3.	2 Wt. Chiverton, £61¾.
10 Colquite and Callington, 25s. 6d.	5 Great Wh. Vor, £12⅞	30 W. Pr. of Wales, 8s 6d
	5 Marke Valley, £8⅞.	2 W. Frances, £31¼.
10 Chiver. Moor, £6 11 3	40 No. Treskerby, 8s. 9d.	1 Wheal Basset, £65½.
3 Cook's Kitch., £11¼.	30 Prince of Wales, 37s 3	20 Wh. Grenville, 32s.
30 Don Pedro, £2 16 3 pm.	2 Providence, £26¼.	3 Wh. Mary Ann. £17½
40 Drake Walls, 17s. 9d.	25 Port Phillip, £1 11s	1 Wheal Seton, £51¾.
5 East Caradon, £4 11 3	40 Rossa Grande, 7s. 9d.	15 Wheal Uny, £3 6s 3d
20 East Grenville, £4 1s 3	25 So. Condurrow, 16s 3d	5 Wh. Margaret, £5½.
30 Frontino, 16s. 3d.	19 So. Herodsfoot, 19s.	20 Yudanamuta., £2 3 9
	5 St John d. Rey, £18¾.	

Mr. MARLBOROUGH is in a position to deal, either as a BUYER or SELLER, in Tamar Valley shares at closest market prices.

MR. GEORGE BUDGE, STOCK AND SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER of the following shares at nett prices :—30 North Downs, 15s. 6d.; 100 Crebor, 9s.; 80 West Drake Walls, 8s. 6d.; 30 East Carn Brea, 6s. 6d.; 35 North Chiverton, £2¾; 15 Brynpostig, 35s; 5 Tincroft, £14⅞; 50 Drake Walls, 17s. 6d.; 100 South Grenville, 6s.; 50 Great South Chiverton; 2 West Chiverton, £62; 20 Rose and Chiverton United; 5 West Caradon, £3⅞; 100 Lovell Consols, 10s. 6d.; 50 Caldbeck Fells, 14s. 6d.; 135 Tamar Valley; 5 Maes-y-Safn, £21½; 110 West St. Ives; 100 Wheal Kitty (St. Agnes), £3⅞; 90 Gwydyr Park, 4s. 9d.; 100 Redmoor, 4s. 6d.; 40 Wheal Mary Florence; 115 West Tremayne, 7s. 3d.; 30 South Herodsfoot, 19s.; 60 West Kitty; 100 Glan Alun, 12s.; 35 Chiverton Valley; 70 Cuddra, 15s.; 80 Frontino and Bolivia, 14s. 9d.; 100 Anglo-Brazilian, 9s. 9d.; 30 Don Pedro; 150 General Brazilian, 4s. 6d. prem.

SPECIAL BUSINESS in Royalton, Cape Copper, Great South Chiverton, South Caradon, Caldbeck Fells, Rose and Chiverton United, and Maes-y-Safn.

CORNISH AND FOREIGN MINES.—TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, Oct. 23, No. 502, Vol. X., price 6d. each copy, forwarded on application, contains information on the following mines :—

Chiverton.	Great Wheal Vor.	Prince of Wales.
West Caradon.	North Wh. Chiverton.	New Wheal Lovell.
West Great Work.	Frank Mills.	Chontales.
South Great Work.	Botallack.	Don Pedro.
Dolcoath.	Drake Walls.	Anglo-Brazilian.
West Chiverton.	West Drake Walls.	Rossa Grande.
		Clifford Amalgamated.

With a Leading Article on Mining Investments, Rise in the Price of Tin, and advance in the Copper Standard, &c.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to *bona fide* investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules-passage, entrance to the Stock Exchange).

Twenty-four years' experience.
(Two in Cornwall and Twenty-two in London.)

Bankers: The Alliance Bank, and the Union Bank of London.

References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE,
FOREIGN AND BRITISH STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.

Deals in all kinds of Foreign Stocks, and the shares of the various Gold Mines, also in the best Dividend and Progressive Mines.

A Price List sent free on application.

Bankers: Alliance Bank.

MR. W. H. CUELL,
No. 42, CORNHILL, LONDON, E.C.

MR G. D. SANDY, STOCK AND SHAREDEALER,
No. 48, THREADNEEDLE STREET, LONDON, E.C.

TAMAR VALLEY.—My advice is, buy these shares. Full particulars on application.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS as a BUYER or SELLER of shares in West Godolphin, Summer Hill, North Pool, and New Lovell.

E. J. B. deals in every description of Mining, Insurance, and other Stocks and Shares, and invites transactions from holders of stock difficult of sale in the open market.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
76, OLD BROAD STREET, LONDON, E.C.

Has BUSINESS as BUYER or SELLER in all British and Foreign Mines.

SPECIAL BUSINESS in Caldbeck Fells, Chiverton, Chontales, Frontino, North Treskerby, Prince of Wales, and Rossa Grande.

Bankers: City Bank, Finch-lane, E.C.

MR. C. A. POWELL, SHAREDEALER, 78, OLD BROAD STREET, LONDON, E.C.

Transacts BUSINESS as BUYER or SELLER in the various shares currently dealt in at net prices.

Parties dealt with at a fair margin on the market price.

SPECIAL BUSINESS in Caldbeck Fells, Chiverton, Frontino, Prince of Wales, and North Treskerby.

Bankers: City Bank, Finch-lane.

MATTHEW GREENE, STOCK AND SHAREDEALER,
1, ST. MICHAEL'S HOUSE, CORNHILL, LONDON, E.C.

Must advance in price—
TAMAR VALLEY SILVER-LEAD and NEW CLIFFORD COPPER MINES.
Full particulars on application.

INTENDING INVESTORS.—The "FINANCIAL GAZETTE," published by Mr. Y. CHRISTIAN, should be consulted with a VIEW to the SAFE EMPLOYMENT of CAPITAL. It contains Original Articles, a Review of the Money Markets, and a selection of investments paying 10 to 17 per cent., and such information as is necessary to guide intending investors.
6, Bond-court, Mansion House, London, E.C.
Bankers: Bank of England.

CHONTALES GOLD COMPANY.—FULL PARTICULARS of the DIFFERENT CLASSES of SHARES can be obtained on application to Mr. J. H. MURCHISON, No. 8, Austinfriars, E.C.

MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C.

T. R. has BUSINESS in the following mines, at close market prices :—

Caldbeck Fells.	East Basset.	Tincroft.
Chiverton.	Frontino and Bolivia.	West Chiverton.
Chontales.	Great Wheal Vor.	West Seton.
Cook's Kitchen.	Marke Valley.	Wheal Agar.
Devon Consols.	North Downs.	Wheal Crebor.
East Grenville.	North Roskear.	Wheal Grenville.
East Caradon.	South Caradon.	Wheal Seton.

T. R. should be consulted immediately respecting Prince of Wales and Wheal Chiverton, having had these mines inspected by competent agents, on Thursday last. A great deal of money can be made in these mines, if advice be properly acted upon at once. I take credit on myself for being right in my advice on these mines, heretofore having got my clients out of Chiverton, at £14 per share, in March, 1864, and Prince of Wales, at £3 to £3 5s. at the commencement of the present year.

WANTED to BUY—500 Caldbeck Fells, 500 Frontino, 200 Chiverton Moor, 300 Bedford United, 500 Bedford Consols, and 10 Tincroft.

Money advanced on good mining shares.

Bankers: Bank of England.

MR. HENRY MANSELL,
44, THREADNEEDLE STREET, LONDON, has FOR SALE at net prices :—

35 Chontales, £2 16s. 3d.	20 East Carn Brea, 6s.	5 West Caradon, £4.
50 Chiverton Moor, £6⅜	15 Frank Mills, £3 6s 3d	35 Wh. Grenville, 32s 6d
20 Drake Walls, 18s.	30 Great Retallack, £3.	70 Wheal Crebor, 9s. 6d.
15 E. Caradon, £4 13s 9d	200 Prince of Wales, 37s 6	20 Wh. Chiverton, £4¼.
75 E. Grenville, £3 18s 9	5 Wt. Chiverton, £61½.	3 Emily Henrietta, £28
		50 Yudanamutana, £2¼

TAMAR VALLEY SILVER-LEAD MINE.—Shares should be bought at once. The new engine works admirably, and the mine will be in fork next week; we shall soon see a great rise in the price of shares.

GREAT SOUTH CHIVERTON are certain for a rise in a few days, now the 50 west approaches the rich lode gone down in the 40.

Mr. H. M. has business both as BUYER and SELLER in these mines.
Thirteen Years' Experience
Bankers: London Joint-Stock Bank.
References exchanged.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.

Attention is invited to the system adopted by this Agency, which offers peculiar advantages to Investors.

English and Foreign Public Securities of every description Bought and Sold, in any quantities, at the current quotations of the day, free of Commission.

LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.

FIVE PER CENT. INTEREST allowed upon DEPOSITS of all amounts withdrawable at one month's notice.

Bank and Finance Agency Business generally undertaken.

TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. CHARLES THOMAS,
MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps,

MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE
PRINCIPAL MINES and MINING DISTRICTS of CORNWALL and DEVON.
Published by CHARLES THOMAS,
At No. 3, Great St. Helen's, London, E.C.

MESSRS. LANE AND GIBBS, 2, ROYAL EXCHANGE, LONDON, E.C. (Members of the Mining Exchange), STOCK AND SHAREDEALERS, transact business in all kinds of securities at closest net prices for cash or account.

MARKE VALLEY, EAST CARADON, WEST ROSE DOWN, and CARN CAMBORNE MINES.—Although difficult to effect transactions in these mines at times on the Mining Market the advertisers are always in a position amongst their correspondents to buy and sell at close prices, and they do not hesitate to recommend a purchase in each and all of the above for a great advance in price and large dividends.

GREAT LAXEY and SOUTH DARREN. SPECIAL BUSINESS in these mines.
Bankers: London and County Bank.

NOTICE TO SHAREHOLDERS.

TRUMPET CONSOLS (TIN) MINE.—WANTED TO PURCHASE, FIFTY SHARES, or any less number, in the Trumpet Consols (Tin) Mine, for cash, at £13 per share.—Sellers please state number to GRANVILLE SHARP AND CO., SHAREDEALERS,
32, POULTRY, LONDON, E.C.

NOTICE TO SHAREHOLDERS.

WEST WHEAL SETON (COPPER) MINE.—WANTED TO PURCHASE, ONE or TWO SHARES in the West Wheal Seton (Copper) Mine, for cash, at £160.—Address, or apply to—
GRANVILLE SHARP AND CO., SHAREDEALERS,
32, POULTRY, LONDON, E.C.

NOTICE TO SHAREHOLDERS.

WHEAL BASSET (COPPER) MINE.—WANTED TO PURCHASE, FIVE SHARES, or any less number, in the Wheal Basset (Copper) Mine, at £65.—Sellers please state number to—
GRANVILLE SHARP AND CO., SHAREDEALERS,
32, POULTRY, LONDON, E.C.

NOTICE TO SHAREHOLDERS.

GREAT LAXEY (LEAD) MINE.—WANTED TO PURCHASE, FIFTY SHARES, or any less number, in the Great Laxey (Lead) Mine, at £18 15s. per share.—Sellers please state number to—
GRANVILLE SHARP AND CO., SHAREDEALERS,
32, POULTRY, LONDON, E.C.

Established Twelve Years.

MR. FREDERICK WM. MANSELL, 44, THREADNEEDLE-STREET, LONDON, is in a position to deal in all marketable shares quoted on the last page of this day's Journal, and has FOR SALE the following, free of commission :—

25 Chiverton Moor, £67⅛	10 Retallack, £3.	6 South Basset, £2¼.
5 Cook's Kitchen, £12¼	5 Gt. Wh. Vor, £13¼.	2 Wheal Basset, £70½.
10 East Caradon, £4¾.	50 Prince of Wales, 38s.	30 Grenville, 34s.
60 East Grenville, £4⅛.	15 So. Herodsfoot, 25s.	100 Gen. Brazilian, £¼ premium.
5 East Lovell, £8¼.	100 W. Pr. of Wales, 10s 6	5 Gt. Laxey, £18¾.

A daily list of closing prices will be sent on application.

All orders for the account must be accompanied by a reference.

Oct. 22, 1868. Bankers: London Joint Stock Bank.

TAMAR VALLEY SILVER-LEAD MINE.—MR. F. W. MANSELL, having returned from visiting the above mine, STRONGLY RECOMMENDS the immediate PURCHASE of SHARES, the price of which, with present position and future prospects, may be had on application, also plan of the property seen.

GREAT SOUTH CHIVERTON SILVER-LEAD MINE.—These shares should also be bought without delay. Every information upon application.
44, Threadneedle-street, London, E.C.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.
Fifteen years' experience in Cornwall and London.

SPECIAL BUSINESS in Providence, Margaret, South Condurrow, Drake Walls, East Grenville, and Chontales.

JAMES SCOTT AND CO., STOCK AND SHAREDEALERS,
14, PINNER'S HALL, OLD BROAD STREET, LONDON, E.C.

J. S. and Co. are BUYERS and SELLERS, for cash or the account, of shares in any of the undermentioned mines, at quoted or INTERMEDIATE prices (free of commission) :—

Anglo-Brazilian	8s 9d	to 11s 3d	North Treskerby	7s	to 9s
Bedford Consols	10s	„ 11s 3d	Pestarena	£ 1½	„ £ 1¾
Chontales	£2 13 9	„ £2 16 3	Port Phillip	1⅛	„ 1⅜
Chiverton	3⅞	„ 4⅛	Prosper United	⅛	„ ⅜
Chiverton Moor	6½	„ 6¾	Prince of Wales	36s	„ 38s
Don Pedro	3 9 0	„ 3 11 6	Rossa Grande	⅞	„ 1
East Caradon	4	„ 5	South Darren	1⅜	„ 1⅝
East Carn Brea	7s	„ 9s	St. John del Rey	17	„ 18
East Grenville	3¾	„ 4	West Chiverton	60½	„ 61½
East Lovell	7½	„ 8	West Caradon	3½	„ 4
E. Russell (call paid)..	2s 6d	„ 7s 6d	West Prince of Wales..	⅜	„ ½
Frontino and Bolivia..	14s	„ 16s	Wheal Grenville	31s	„ 32s
Great Laxey	19	„ 20	Wheal Seton	48	„ 50
Great Wheal Vor	12¼	„ 12¾	Yudanamutana	2	„ 2⅛
Lucy Phillips	2	„ 3			

Money advanced on marketable mine shares at 5 per cent. per annum.

J. S. and Co. having in their employ several of the most experienced and trustworthy mine agents in the United Kingdom, who periodically inspect on their behalf all the *bona fide* mines in Devon, Cornwall, and Wales, are enable to accord to their friends and clients reliable advice as to the present and future prospects of mines they deem worthy the attention of investors.

References will be given to the Alliance Bank and the Bank of England.

J. S. and Co. can recommend several good low-priced shares likely to rise considerably in value within a few months.

TO CAPITALISTS AND INVESTORS.

MESSRS. T. A. MUNDY AND CO. have FOR SALE a QUANTITY of MISCELLANEOUS SHARES, many of them very great bargains, and unattainable through any other channel. Dividends may be safely secured varying from 8 to 20 per cent.

Special attention given to *bona fide* English and Foreign Mining Shares.
MISCELLANEOUS SHARE EXCHANGE,
38, BISHOPSGATE STREET, WITHIN, LONDON, E.C.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.

ROYALTON.—The steady increase in the price of tin is causing a great demand for shares in legitimate tin mines, and which, there can be little doubt, will become generally valuable. Investors, however, should be careful how they place money in deep and expensive mines, which can only pay profits with tin at high prices. They should rather seek an investment in those mines which, with expensive reserves, can pay profits with tin at its lowest price. Among the best of this latter class I place Royalton, and recommend the purchase of the shares wherever they may be met with. At their present price they are intrinsically very cheap indeed.

MR. EDWARD BREWIS, STOCK AND SHAREDEALER,
34, OLD BROAD STREET (two minutes' walk from the Bank of England) and 93, BISHOPSGATE STREET WITHIN, LONDON, E.C., has for SALE free of commission, cash or account, viz. :—25 Chontales, £2¾; 10 Lucy Phillips, £3⅛; 5 Great Vor, £13⅛; 120 East Bottle Hill; 50 North Treskerby, 8s. 9d.; 30 East Carn Brea, 5s. 3d.; 50 West St. Ives, 3s.; 60 West Godolphin (offer wanted); 55 Frontino and Bolivia, 15s. 9d.; 30 East Chiverton (offer); 25 Don Pedro, £3⅛; 70 Glan Alun, £⅝; 50 West Kitty, 7s. 6d.; 10 Rose and Chiverton United (offer); 50 Rossa Grande, 10s. 3d. prem.; 20 Drake Walls, 17s. 9d.; 15 Brynpostig.

ROYALTON shares are steadily advancing to £2 each; a few left for sale at 26s. net.

CHIVERTON and EAST CHIVERTON.—SPECIAL BUSINESS to *bona fide* buyers. These shares are becoming, from recent discoveries, the favourite medium of speculation.

BUYER or SELLER for immediate cash, or any settlement in 1868
Bankers: Alliance Bank, Bartholomew-lane, London, E.C.

Original Correspondence.

NEW SYSTEM OF IRON AND STEEL MAKING—No. V.

BY G. J. AND T. C. HINDE.

The steel of commerce is an article of very diverse character, and in this diversity of character is reflected the variety of the processes by which it is made. Amongst the best known kinds are German steel, puddled steel, blister steel and its products single and double shear steel, cast steel of the older methods, and cast steel of the Bessemer process; and the names of Heath, Mushet, Uchatius, and hosts of others in the Patent Records show the constant efforts which have been made to improve and cheapen the production. It would seem difficult to evolve any rule from the chaos of processes and products which apparently characterises the manufacture of steel, but we shall find this seeming confusion will yield to careful investigation, and that all the plans of steel-making possible are reducible into two groups. Before we can elucidate the principles upon which these two groups depend, it is necessary to consider the relation which steel bears to the two other forms of metallic iron—malleable iron and cast iron. Pure malleable iron is, of course, free from any alloy whatever; steel consists of an alloy of carbon varying from one quarter per cent. up to one per cent., and in cast iron the carbon varies from about two per cent. to five per cent.; other substances than carbon are, however, often present, sometimes intentionally and sometimes unavoidably, both in steel and in cast iron. The characteristic properties of malleable iron are infusibility, malleability, the property of welding, and the incapability of being hardened. The characteristics of cast iron are fusibility, the property of hardening when chilled or suddenly cooled, and a want of malleability and of the welding property. Steel partakes, to some extent, of the properties of both malleable iron and cast iron. With the lowest percentage of the carbon alloy, soft or mild steel is produced, possessing the welding and malleable properties of malleable iron, and being nearly infusible, and to these uniting the capacity for hardening. With the largest amount of carbon alloy, hard steel is produced, which has lost the property of welding, is readily fusible, and becomes intensely hard when suddenly chilled. Intermediate between these are various gradations inclining to one or other end of the scale, as the percentage of alloy increases or decreases between the limits named, the characteristic properties of malleable iron predominating in those samples which contain the least carbon alloy, and the properties of cast iron where the greatest amount of carbon alloy is present. When this alloy exceeds one per cent. the properties of cast iron become so far developed that the product ceases to be ranked as steel. The other bodies, which are unavoidably present in some steel, consist of impurities which it has not been practicable to wholly remove, and the steel is deteriorated in quality more or less as the quantity of these impurities varies. The substance which is most frequently intentionally alloyed with steel is manganese, a metal which partakes, in some degree, of the properties of both iron and steel. But pure iron and pure carbon are all that are actually necessary for the production of steel. This is abundantly proved both by philosophical experiment and by daily practice. Steel has been formed by melting pure iron along with diamond dust, and it is manufactured regularly in Sheffield and elsewhere by exposing the purest malleable iron which can be obtained to the action of charcoal, either in a crucible or in a closed furnace, as in the cementation process. Though, therefore, steel does frequently contain matters other than carbon, yet, as they are not essentially necessary for its formation, we need not at present discuss the qualities which they impart to it at any length. The systematic use of the most important of them—manganese, was originated by Mr. Josiah Marshall Heath, in 1839. We have already seen that an alloy of carbon with malleable iron, in proportions of one quarter per cent. up to one per cent., constitutes steel, and a proportion of two to five per cent. of the carbon alloy forms cast iron. Steel is, therefore, malleable iron *plus* carbon, and it is cast iron *minus* carbon; and we, therefore, now arrive at the two principles upon which every process of steel-making is, and must be, founded—the one being the addition of carbon to malleable iron, and the other the removal of the excess of carbon from cast iron.

We will now briefly point out the distinctive features of each of the modes of manufacture we have mentioned, and then by investigating the results of each, we shall be in a position to decide which of the two principles—the addition of carbon to malleable iron, or the withdrawal of carbon from cast iron—is the true one. German steel is made in the charcoal forge, and puddled steel in the puddling-furnace, both operations being conducted up to a certain point in the same manner as in making malleable iron from pig iron. The pig-iron is melted down, the alloy in it oxidised and removed to a certain extent, but the oxidation is not carried to the point of wholly removing the carbon. As soon as the alloy is so far reduced in quantity that the iron begins to lose its fusibility, or "come to nature," as the workman terms it, he gathers the now cohering particles together as rapidly as possible, and brings out the metal "young," or "green"—that is, as soon as possible after it assumes the welding condition. But this welding condition occurs before the carbon is wholly oxidised and removed, and by stopping the oxidation at this point, sufficient carbon is retained by the iron to constitute steel. The best pig iron is requisite in both the charcoal forge and the puddling-furnace to produce even a moderate quality of steel, and if the pig-iron contain any considerable alloy of impurities, steel cannot be made from it in either of these furnaces. We will next take the Bessemer process of making steel. On June 18, 1855, Mr. Bessemer patented a method of making cast steel in pots, which were to have a a tapping-hole in the bottom, and a long fire-clay plug was to pass through the pot and its contents, entering by a hole in the lid, and this plug to be lifted from above by a pair of tongs, thus allowing the metal to flow out. On Oct. 17, 1855, Mr. Bessemer patented a plan of making cast steel in which these pots were to be employed, and heated as before by external fuel, but a blast-pipe was introduced into each pot in order to pass a current of either steam or air through the pig iron. In this patent Mr. Bessemer states that steam cools the metal, but air causes a rapid increase in its temperature. On Feb. 12, 1856, Mr. Bessemer took out another patent, in which he says that he has discovered "That if atmospheric air or oxygen is thus introduced into the metal in sufficient quantities it will produce a vivid combustion among the particles of fluid metal, and retain or increase its temperature to such a degree that the metal will continue fluid during its transition from the state of crude iron to that of cast-steel or malleable iron without the application of any fuel, the requisite high temperature by such mode of action being obtained by the oxygen uniting with and causing a combustion of the carbon contained in the crude iron, and also by the combustion of a small portion of the iron itself."

From the dates of these patents it may be inferred that the fact that the metal might be kept fluid by the heat generated by the combustion of the carbon in the iron, and of a portion of the iron itself, became manifest to Mr. Bessemer during his experiments in the earlier patents of forcing the air through the fluid metal in the pots, while the pots were heated by external means. The heat generated by the combustion of iron has long been known. The familiar experiment of the lecture-room of burning an iron wire in an atmosphere of oxygen, and the use of iron filings in fireworks, are both well known instances. The same property of iron has been made use of from time immemorial by the hand-made horsenail makers. They keep a small jet of air blowing upon the red-hot iron rod while they are working it upon the anvil, in order that by the combustion of a portion of the rod the remainder may be kept so hot during the making of the nail, that the nail comes from the hammer quite soft and malleable, thus avoiding that "hammer-hardening" which takes place when iron is hammered cold or at low heats. Mr. Bessemer having described the effect of passing atmospheric air through the molten iron, states that the operation is arrested at the point when the metal is purified and decarbonised to the required extent, and it is then brought into the state of hard or soft cast steel, or by continuing the operation five or ten minutes longer into that of malleable iron. The principle upon which Mr. Bessemer proceeds is, therefore, identical with the earlier operations of making German steel and puddled steel, and his process belongs to that class which operate upon the principle of removing carbon from pig iron down to the steel-forming point, and then arresting the process at that point. In 1855 Captain Uchatius patented his plan of making steel by granulating or shotting cast iron by pouring the molten iron into cold water, and then melting the granules or shots so formed in a crucible mixed with sparry iron ore, or other oxygen-affording bodies, until the cast iron is decarbonised down to the required point for the formation of cast steel, the decarbonisation being regulated by the size of the granules, and their consequent greater or less exposure to the action of the oxygen afforded by the iron ore, with which the granules are to be mixed in the melting-pot. We have thus steel made by four entirely distinct modes of operation—German steel from the charcoal forge, puddled steel from the puddling-furnace, cast steel from the Bessemer furnace, and Uchatius steel from the melting-pot, all of these being produced on the principle of reducing the quantity of carbon contained in cast iron.

We now turn to the processes of steel-making, which are conducted upon the principle of adding carbon to malleable iron. In the manufacture of blister steel bar iron of the best quality is enclosed in a fire-brick furnace, which is so constructed as to entirely exclude the atmospheric air, and is heated through a fire-brick casing by external flues. The iron is interstratified with charcoal, and is kept at a full red heat for a week or more, according to the quantity of carbon it is intended to combine with the iron, and the consequent hardness or mildness of the resulting steel. Formerly the charcoal was mixed up with some other substances, and made into a species of cement, amongst which the iron was placed, and this is the origin of the terms "cementing furnace" and "cementation," which are still used, though the charcoal is no longer formed into a cement, but is simply interstratified with the bars of iron. The resulting steel, when taken out of the cementing furnace, is quite brittle, and covered with large blisters on its surface. Broken up, piled or fagotted, it is re-heated, taken to the forge hammers, and drawn down into bars of "single shear" steel. These bars cut down, piled or fagotted, again re-heated, and again drawn down, become "double shear" steel. Cast steel was originally made by re-melting pieces of blister steel in a fire-clay crucible or "pot." In 1839 Mr. Josiah Marshall Heath patented his process for making an improved quality of cast-steel, "by introducing into the crucible bars of common blistered steel, broken, as usual, into fragments, or mixtures of cast and malleable iron, or malleable iron and carbonaceous matter, along with from one to three per cent. of their weight of carburet of manganese.

In the same year Mr. Wm. Vickers patented the use of borings or scrap wrought iron for making cast steel, by melting these in a crucible along with carbon and oxide of manganese. These plans of Heath and Vickers, of melting malleable iron with carbon and manganese, or mixtures of malleable iron and cast iron with manganese, have been, and still are, largely used, some modifications in detail being occasionally made. Recently it has been proposed to make cast steel by melting malleable iron along with spiegeleisen, an iron smelted from spathose iron ore, and containing a large percentage of metallic manganese and of carbon, in a regenerative furnace of the description patented by Mr. Frederick Siemens, December 2, 1856. This is, of course, merely substituting the Siemens furnace for the crucible of Heath and Vickers, the operation in other respects being precisely similar. A limited quantity of steel has been made by one or two mis-called "direct" processes, the malleable iron in these being procured by exposing pieces of iron ore to the action of carbon in a furnace constructed on the same principle as the cementation furnace for forming blister steel. The pieces of malleable iron resulting from the removal of the oxygen from the iron ore by the action of the carbon are then melted in a crucible with carbon and manganese, either in the shape of spiegeleisen, or charcoal and manganese. The term "direct" is, of course, inaccurately applied in these cases; it can only be correctly used where steel is produced from the ore at one operation. Here two are involved—the cementing and the melting, and steel made by these processes belongs to our second group, those in which steel is formed by adding carbon to malleable iron.

ANOTHER COAL AND IRON MASTER ON MINING IN SOUTH STAFFORDSHIRE.

"Another Coal and Iron Master" in South Staffordshire has sent us a communication, bearing especially upon those portions of the report of the Mines Inspector for that district, which we have recently transferred to our columns. His production would seem to have been suggested by the information relating to the coal supply which appeared in the *Mining Journal* of Oct. 10, and which, as stated at the time, was written from that part of the kingdom owing to those of Mr. Baker's views which had reference to the alleged rapid exhaustion of the fuel of that basin. We treat this communication as we treated the other, and give it pretty much in the words in which we received it. "Another Coal and Iron Master" says:—

The points upon which Mr. Baker writes gloomily with reference to the future of this district are—*First*, that owing to the prevalence of the butty system, and the hold it has on the district, he finds it impossible sufficiently to impress his views upon those who are actively engaged in raising the produce of the mines; and that they are, according to his views, an ignorant and inert class.—*Second*, that the mine agents (whom he accuses of lately having called themselves "Mining Engineers," with some covert design by that nomenclature to escape responsibility) are not so attentive as they ought to be.—*Third*, that the masters show a disposition to escape any responsibility attaching to their position (as though they would not); and, *Fourth*, that the coal of the district being now gotten to the extent of 10,268,000 statute tons per annum, must in a few years become exhausted.

Now, there are those in this district who are quite prepared to join issue with Mr. Baker upon all these points. We say that, owing to the division of property in South Staffordshire, the numerous faults by which it is further subdivided, and the consequent increase in the number of small collieries, no other than the butty system is possible. We further say that the mining agents are quite entitled to call themselves by any name that they may choose, and that as a rapidly improving class they are, by their Association, week by week more and more thoroughly educating themselves for the higher walks of their department, and in doing so are not confining themselves to this district, but are periodically visiting the best examples of mining enterprise throughout the country. Such men, we assert, should receive from a person occupying the position in their district of Government Inspector, not rebuke but encouragement; for it is clear that upon them, more than upon anyone else, depends the commercial value of our district. Whilst, therefore, our mining agents are displaying that professional enterprise which characterises them in an increasing degree, I, as an employer of such men, shall continue to exercise that amount of confidence in them, and in their judgment, which I should like to extend to the Government officer. If I rightly interpret the duties of Inspector, it is not only to see that the law is observed in his own district, but also to make the restrictions of law as palatable as possible to both men and masters. He has to exercise conciliatory tact as well as resolute determination. He has to do more; without making the Government responsible for methods of working, he should from time to time be able to make suggestions to the mine agents and others, which, founded upon the principles of science, and conformable with the best instances of the development of those principles in the mining operations of the present day, shall, when acted upon, contribute not only to the immediate benefit of the locality under inspection, but by the economising of a leading source of the wealth of the nation contribute materially to the nation's prosperity. Now, how does Mr. Baker conform to this ideal? He is a public servant, and as such his actions are open to criticism. He has freely criticised us, both masters and agents, and he will not object to any criticism on our part, that shall be fair. However unfair his criticism may have been of us, you will, I suspect, in the exercise of your editorial pen, take care that we do not speak unfairly of him. So far as I judge from what appears in your paper, which I unfold from week to week with great pleasure, all the recommendations that Her Majesty's Inspector of Mines in South Staffordshire and East Worcestershire makes may be summed up in the degrading words, "increase of fines, pains, and penalties." This is mediæval advice, and smacks of regenerating the Mining Society, for whose benefit he may be said to have been "established," by the pillory and the thumbscrew. Whatever Mr. Baker may deplore as antiquated in the mining skill of the district he superintends, there surely was never anything more retrogressive or antiquated than inspection of this class. And we, who are subject to his control, whilst annoyed by suggestions so absurd, unsupported as they are by any advice of a professional kind, have this consolation, that such a report would not emanate from Mr. Baker's more intelligent compeers in other districts.

We have here the quite pleasing recollection of the sway of the Inspector by whom Mr. Baker was preceded. It seemed to be Mr. Brough's one object to make the Act of Parliament under which Inspection becomes legal both familiar and agreeable alike to masters and men. And he was not only able to make suggestions which were worth listening to, but he availed himself of every favourable opportunity of making them. Between him and the mining agents there was no contention, for he trusted to an influence of a higher character than that of the Police Court. "It should" was more frequently to be heard from him than "it shall," and the result was that the South Staffordshire man, who of all Englishmen has a reluctance to be driven, yet who never refuses to be led, was completely under the control of the Inspector of that day. Of Mr. Brough desire to instruct our working colliers I have an illustration in a pamphlet I possess. It is a published lecture, which was delivered in the town of Dudley before a crowd of the class of men whom it was intended to benefit, whilst the lecturer had about him a large number of masters and agents, who were glad by their presence to show their sympathy with, and their respect for, the man who was, in the efforts of that night, fulfilling one of the highest purposes of his mission.

This brings afresh to my memory a complaint which I frequently hear from mine agents, that Mr. Baker shows no sympathy with their Association. They say that Mr. Brough, in Wales, and other Inspectors, in other places, where such associations exist, are active members of them. But upon this I do not enlarge, because I think I have seen in some previous numbers of the *Mining Journal* that Mr. Baker believes he has some cause for his isolation in this case. At the same time I rather suspect that that "you shall" style has brought about the difficulty, and that it is only a further illustration of the adage, "Tread upon a worm, and he'll turn."

With regard to this 10,000,000 tons of coal raised every year in the South Staffordshire and East Worcestershire and Cannock Chase localities, why it represents a quantity which spread over the enormous area of ungotten and only partially worked ground we still have here that, in familiar phrase, is only a flea-bite, especially when we consider that owing to the mechanical and scientific improvements in the use of fuel (as, indeed, your other correspondent showed) many seams, a few years since deemed worthless, are now being wrought and utilised to a profit. And that we have not yet exhausted all our precious thick coal was pretty conclusively shown, not only in the Coal and Iron Master's letter, but also in the report you printed last week upon the immense mineral property yet remaining belonging to the Earl of Dudley. I, for one, have no misgivings about South Staffordshire. I have great faith in it; and now that other districts have shown us they can make iron to a great profit, even when they have to bring all their fuel the distance of more than half a county, and where they have economised to the utmost, what will be the position of South Staffordshire when it has economised to a similar extent? Why, it will not only keep its own, as it has done, but it will lead the van aggressively, as of yore.

But allowing for a moment that the views of the Inspector upon the question of supply may be founded in part upon fact, what consolation does he give us? How does he, a paid Government official, look ahead for the district he has to superintend? On this point he has neither comfort nor advice; and, if we are to wait for his initiation of some valuable suggestion, it is evident that our prospects are miserable indeed. What is the good of this impotent whining and wringing of hands on his part when "a matter of the greatest moment to the iron and hardwares of this important district," as he designates the question, is at stake? South Staffordshire, with all its coal, and iron, and hardware industries, is threatened with something like utter annihilation "within a few years;" yet the only recommendation which the man whom the nation has put there to assist in making the most of its natural advantages is "extended pains, penalties, and fines" for breaches of the law in working the mines. Such a suggestion as recommending his Government to assist proprietors to test for coal in certain promising localities beneath the Permians surrounding this district is evidently quite beneath the notice of a man of Mr. Baker's calibre. I sincerely trust that the next Annual Report upon the Coal Mining of South Staffordshire may have in it that which I am sure your respect for the functions which the 12 Inspectors discharge, and your jealousy for the character of the coal mining centres of Great Britain will induce you to print with feelings of far more satisfaction than, I am quite sure, you must have entertained when you furnished us with those extracts from Mr. Baker's report for this year, upon which I have, I fear, at too much length been descanting.

YORKSHIRE COAL MINING AGENTS' ASSOCIATION.

Sir,—Would you kindly allow me, through the medium of your valuable Journal, to intimate and call the attention of all connected with coal mining operations in Yorkshire to an effort now being made to establish an association, called the Yorkshire Mining Agents' Association, having for its object the diffusion of knowledge amongst colliery agents, and to extend its enquiries into the various schemes, plans, and contrivances now followed with varied success in the Yorkshire coal mines, so that the merits of each individual scheme may be examined and discussed, with all the claims contingent thereto. Such a course as this cannot fail to be pregnant with beneficial results to all those who may enrol themselves in the project, seeing that it is intended, not only for managers, viewers, and engineers, but likewise for stewards and deputies, who may reap valuable information from questions brought forward for consideration and discussion, touching operations which each may be daily directing.

Considering the absence of any society as the one now under consideration, it might be presumed that there was a lack of confidence in each other, or that the faculty possessed sufficient experience and knowledge as to leave nothing to be desired from mutual aid; but since the present effort has been made it has brought to light the existence of a local association at Barnsley, called the South Yorkshire Viewers' Association. This has been in existence many years, but whatever was the object sought it must be confessed to have signally failed, inasmuch as nothing in the character of a paper on mining operations has been contributed for many years. This may appear to have, and no doubt has, exerted an influence against the formation of another society for the same object.

When it is observed that all branches of art and manufacture are partaking of the aid and advantages resulting from combined and mutual help, it cannot be denied that the requirements of mining operations are such as to need all that practical and scientific knowledge can concentrate for the benefit of each individual; and in no part of the mining kingdom are the requirements greater than in the county of Yorkshire, beset, as her coal mines are, in many parts with an enemy subtle and deceptive, requiring the most careful attention, skill, and judgment to destroy its dangerous capabilities. From individual or collective intercourse results an effect peculiarly advantageous, not only to one class of officials, but likewise to all, of whatever grade or experience in mining engineering; for by frequent communications which might be thought to be essential to an exchange or bartering of ideas and knowledge, we enable ourselves to become acquainted with all that is useful and beneficial connected with the varied operations in coal mining. Thus, by degrees, the great disparity between the operations of one mine and that of another, if not destroyed, are at least modified to that degree limited by the varied circumstances of each. When we observe an operation carried forward by a certain rule in one locality, whilst in another, under similar circumstances, a rule the very opposite is pursued, we cannot say that both are right, although each locality will hold tenaciously to that which has guided it in its operations.

Now, in a country like our own, men with the same object before them must, or ought, to feel a unity of sentiment in everything which may lead to the furtherance of that object. Assimilation of ideas

and sentiment cannot fail to introduce a spirit of order, harmony, and good government, calculated to be highly favourable in attaining the objects now sought by this society.

It is to be hoped that those gentlemen who, by a superior education and practical training, have fitted themselves for the highest offices as mining engineers will extend their aid and influence in furtherance of this scheme; their attainments, it is to be hoped, will manifest and quicken the sense of mutual want, and mutual dependence, in the minds of those who have, by their own industry and merit, rose through the various grades to that of colliery viewers, and likewise may it act as an incentive and stimulant to all those under officials, so that they may prepare themselves for the duties devolving upon those in charge of a mine.

A meeting in connection with this society is to be held at Wakefield the latter part of this month, when it is expected the association will be duly established.—*Oct.* 20. CARBONIFEROUS.

OBSERVATIONS ON COLLIERIES IN SOUTH WALES.

THE RHONDDA VALLEY.

The South Wales coal formation is estimated to be contained in 900 square miles. The coal measures consist of four series, as follows:

	Feet.	Thickness of coal.
Llanelly series, 8 beds of coal	1000	18 feet.
Penllergare series, 110 beds of shale, sandstone, and coal; 26 seams of coal, 16 above 18 in.	3000	50 feet.
Central series (sandstones of Swansea, or Pennant grit of the Bristol coal field), 62 beds, 16 seams of coal	3246	28 feet.
Lower series (Merthyr and Aberdare), 266 beds of shale, coal, and ironstone; 34 seams of coal	812	83 feet.
Total	8058	

The coal on the north-east and eastern sides of the basin is both bituminous and semi-bituminous, the latter yielding the Aberdare and other smokeless steam coals. The coal on the southern side is generally bituminous, and in the north-western part, the Llanelly and Swansea Valley districts, the anthracite occurs; it is in the Llanelly district the coal measures attain their greatest thickness.

The working of coal in the Rhondda Valley is confined to Nos. 2 and 3 seams (little of the first), bituminous and coking coals, and the 2 ft. 9 in. and 4-ft. steam coals; the latter have been extensively opened out during the last 10 years, the seams below these have been got to a small extent. The same coals worked at Merthyr and Aberdare for steam purposes, prove in this valley a little more bituminous, but equally valuable for the generation of steam, and in a direction still further south-west these coals become more bituminous, and of a smoke-producing quality. The quantity of carburetted hydrogen gas given off in the 2 ft. 9 in. and 4-ft. seams is considerable, but with careful management and efficient ventilation it can be easily kept in control. The power used for ventilation is invariably the furnace, no other system has yet been tried.

DUNRAVEN COLLIERY stands at the head of the Rhondda Valley, is 24½ miles from Cardiff, have 1000 acres of royalty leased, rent varies from 6d. to 9d. per ton of coal, two pits are sunk to the upper 4-ft. steam coal, 170 yards deep, dip to north 4 in. per yard. Graig and Abergorky seams also worked by level.

CWM SAEBRON COLLIERY.—Marquis of BUTE scolliery and royalty; the 2 ft. 9 in. and 4-ft. seams worked, about 200 tons per day, the 2 ft. 9 in. an excellent steam coal.

TY-NEWYDD COLLIERY.—Mr. LEWIS has sunk two pits to the 4-ft. seam.

TYL-A-COCH.—One pit sunk through the 4-ft., 6-ft., and 9-ft. seams; the latter is now being worked.

ABERGORKY COLLIERY, leased by Messrs. INSOLE and SON, work the Abergorky and 4-ft. seams, about 200 tons per day, two pits sunk to the 4-ft., 176 yards deep, one 15-ft. drawing-pit, one 12-ft. air-pit, one winding-engine, two 25-in. horizontal cylinders, 4-ft. stroke, two cages, three wire-rope guides to each cage, four large wrought-iron balance screens erected, water drawn at nights by winding-engine, with cistern. Abergorky seam is worked by level; Messrs. INSOLE'S steam coals are on the British, French, Spanish, and other Government lists.

YNISFAIO COLLIERY.—Three pits sunk to the 4-ft. seam, 130 yards deep; coal raised by water balance, 120 tons per day got, a pumping-engine afterwards lifts the water thus sent down. The 4-ft. seam is worked by long wall, averages 4 ft. 6 in. thick; stall roads, 22 yards apart, are double-timbered, 6 ft. square, timber used largely; mine free from water, men work with safety-lamps; furnace 9 ft. square in operation, special air-pit for upcast.

PENTRE COLLIERY.—Leased by Messrs. GREENFIELD and WARE. The Pentre seam worked by level, 2 ft. 10 in. thick, including an inch band, 12 in. from the bottom. Coal got by long wall. Stall roads from 20 to 24 yards apart, made 6 ft. high by ripping down the top. Two men and one boy in each stall. Small proportion of slack left underground. The band which sticks the coal requires a great amount of labour on the bank to effect its separation. Coal is all hand-picked, and used for locomotive purposes.

CHURCH COLLIERY.—The same owners. The Abergorky seam is worked by level: 150 tons per day.

PENTRE PITS.—The same owners. Are sunk to the 2 ft. 9 in. seam, 9 ft. and 7½ ft. diameter, 198 yards deep. No water met with in sinking. Winding engine, one 25 in. vertical beam engine, 4-ft. stroke, 25 lbs. steam pressure, on second motion.

BODRINGALLT COLLIERY.—Leased by Messrs. SIMPSON, WARNER, and CO. The Abergorky seam is worked by level: 200 tons per day, an inferior steam coal. Section: Top coal, 1 ft.; clod, 9 in. and upwards; bottom coal, 2 ft. 6 in. This seam is worked by wide cross headings, and pillar and stall. Pay 2s. 4d. per ton of large to colliers, who cut the bottom for stall roads, set timber, and lay the rails. Small stowed underground. Two pits sunk to the 2 ft. 9 in. seam: 13 ft. for drawing, 11 ft. diameter upcast, 242 yards deep. Winding engine, two 30-in. horizontal cylinders, wood guides, two carriages for one tram each. The three pits named above, Ty-Newydd, Pentre, and Bodringalt, are sunk at a considerable elevation up the hill side, and the coal is afterwards lowered by self-acting inclines to the level of the Taff Vale Railway; the object of this is to avoid faulty ground, which is supposed to lie under and adjacent to the low ground of the valley.

TON COLLIERY, leased by Messrs. DAVID DAVIES and Co. Two pits sunk through the 2 ft. 9 in., 4-ft., and yard seams; one 16½ ft. by 12 ft., and another 14 ft. by 12 ft.; both are intended to be used for raising coal. The 2 ft. 9 in. seam is now worked 212 yards deep, and 5 ft. in thickness. One winding-engine erected at the large pit, with two 26-in. horizontal cylinders, 5 ft. stroke, 40 lbs. steam pressure, double-beat valves, double piston-rod, 12-ft. rope rolls for flat wire-rope, made by A. J. GUTZMER, Manchester. Two carriages in the pit; each draws in one tram about 1 ton of coal. The carriage runs in three wire rope guides. The pits are walled throughout with stone, 12 in. in the bed. In sinking the springs of water were raised in large tubs by the winding-engine, without the aid of pumps. There were large springs met with at two points in sinking—one at 80 yards deep, another at 186 yards; lodge-rooms were made at both these places. The influx of water has gradually diminished since it was first tapped; it has been raised by the winding-engine with a large cistern, being let off from the lodge-rooms by a valve and pipe direct to the cistern, at certain times of the day. A 16-inch horizontal cylinder engine is erected to pump the water from the upper lodge-room.

PARK AND MAINDDU COLLIERY.—Same owners. Two oval pits sunk through the 2 ft. 9 in., 4-ft., yard, and 6-ft. seams, 190 yards deep. Downcast, 16½ ft. by 12 ft.; upcast, 14 ft. by 12 ft. The 2 ft. 9 in. and 6-ft. seams worked—depth to the former 131 yards—is above 4 ft. thick; dip south, 4 in. per yard. The winding-engine erected at the Large pit is of the same size and construction as that at Ton. In sinking these pits considerable thickness of rock was passed through, and heavy springs of water flowed from the rock; this was raised by the winding-engine with large tubs.

BWLCHFA COLLIERY.—No. 3 seam worked, leased by Mr. FOTHERGILL; coal sent to Abernant Works for coking: 150 tons per day got; average thickness, 3 ft.; coal worken by level; cross-headings 8 yards wide, and stall and pillar-stalls 12 yards, pillars 12 yards wide, driven 60 yards forward. The price paid to colliers is 2s. 2d. per ton of 2520 lbs., mixed coal, for 2 ft. 10 in. in height; below this an allowance is made for every inch; this includes cutting bottom, setting timber, and laying rails; roof good, and requires little timber. One 12-in. cylinder hauling-engine placed at the mouth of the level draws the full wagons out; empty ones run in by gravity. The engine also works at nights a 6-in. force-pump, pipes being laid along the plane to the level mouth.

CWM CLYDACH COLLIERY, leased by Messrs. PERCH, MYERS, and Co. The No. 3 seam is worked 170 tons per day of through or mixed coal, averages 2 feet 9 in. thickness. Worked by pillar and stall; stalls 14 yards, pillars 10 yards wide; bottom cut in stall-roads; rock top. Fire-bricks made from the under-clay. Forty oblong coke-ovens erected, 4-ft. chimney to each, with iron damper on top; coke drawn by cradle and two fixed crabs.

BLAEN CLYDACH COLLIERY, royalty 460 acres, leased by Dunraven Company. No. 3 seam worked averages 2 ft. 8 in. thick; rock top; stalls 14 yards, pillars 10 yards wide; cross-headings wide. Twenty-six oblong coke-ovens erected; coke drawn by cradle and one fixed crab; charged at doors.

LLWYN-PIA COLLIERY, leased by Glamorgan Coal Company. No. 3 seam worked, two pits sunk, are continued down to the 4-ft. seam to a great depth; 18 oblong coke-ovens erected.

CYMMER COLLIERY, leased by Messrs. INSOLE and SON. No. 3 seam worked, two pits sunk to it, 80 yards deep; 30 double coke-ovens built, drawn by hand; 16 oblong coke-ovens, 14 by 6 ft., drawn by crab.

COED-CAE COLLIERY.—No. 3 seam worked 200 tons per day; two pits sunk, 120 yards deep; 38 oblong coke-ovens built, drawn by cradle and crab; 29 round ovens, drawn by hand; long steam-boiler erected on these, heated by the waste gases from the ovens.

DINAS COLLIERY.—Messrs. COFFIN and Co. No. 3 seam exhausted in pit; one pit sunk to the 4-ft. seam, have lately reached the same seam in another pit at the depth of 400 yards, 6 ft. 11 in. thick; two 30-in. cylinder horizontal engine, 5-ft. stroke, at the new sinking, 14-ft. rope rolls. A water-wheel works two small sets of pumps at the top of this pit, work No. 3 seam by level, 72 circular coke-ovens erected.

TROED-RHIW COLLIERY.—No. 3 seam worked, raised by water-balance, about 180 tons per day.

GREAT WESTERN COLLIERY.—No. 3 seam worked 300 tons per day, two pits sunk to it, 150 yards deep; a large proportion of the coal is made into coke, 120 ovens are erected. Two 25-in. horizontal cylinders winding-engine, 4-ft. stroke, at one pit, pumping-engine at the other pit. No. 3 seam worked as at Bwlchfa. An engine underground for hauling on a plane 1500 yards long.

FATAL ACCIDENTS IN COAL MINES.

FALLS OF COAL AND ROOF.

It would appear as if it was only on the sudden announcement of some terrible and appalling catastrophe, involving the loss of some scores or hundreds of lives by a colliery explosion, that the general public are aroused to a sense of the danger to which persons engaged in mining operations are liable. Explosions in collieries of late years have, unfortunately, been attended with a loss of life before unknown in the history of mining, and have, consequently, at first caused a good deal of suffering to numerous families, but which has ultimately been alleviated with that unsparing liberality peculiar to Englishmen on the occurrence of any great calamity at home or abroad. There is, however, one class of accidents in mines of very frequent occurrence, involving annually a great loss of life, and for which all rules and remedies so far have been unable to keep from increasing. Scarcely a day elapses but we read of a fatal accident from a fall of coal or roof in some of our collieries, and in almost every instance we find the coroner's jury returning the stereotyped verdict of "Accidentally Killed." The wives and families of the men who have thus been suddenly taken away, unlike those who have lost their support by some terrible catastrophe by fire-damp, which has swept away some hundreds, and who are provided for by the liberality of the public, have to seek for parochial aid, having no prop or general sympathy to fall back upon.

It is a serious fact that during the past year more lives were lost in collieries from falls than from explosions of fire-damp, and it is not a little singular that in the district where there was the greatest mortality from explosions there was also the largest number of deaths by falls of coal and roof. Such was the case with regard to South Wales, where 185 persons were killed by explosions, and 67 by falls. That the extent of such accidents is not generally known we fully believe, otherwise we should have a demand made for an enquiry into them, with a view to providing a remedy as far as possible. That there is no exaggeration in the statement made will be seen from the following table of the deaths caused in the various colliery districts by explosions of fire-damp and falls of roof and coal during 1867:—

Northumberland, Cumberland, and	Explos. of fire-damp.	Falls of coal.	Falls of roof.	Total falls.
North Durham	—	7	24	31
South Durham	1	3	26	29
North and East Lancashire	18	9	21	30
West Lancashire & North Wales	23	7	46	53
Yorkshire	1	11	30	41
Derbyshire, Notts, Leicester, Warwick	4	6	19	25
North Staffordshire, Cheshire, and Shropshire	17	10	17	27
So. Staffordshire & Worcestershire	18	43	17	60
Monmouthshire, Gloucestershire, Somerset, and Devonshire	6	12	27	39
South Wales	185	19	48	67
Eastern District of Scotland	11	9	14	23
Western District of Scotland	2	11	13	24
Total lives lost in 1867	286	147	302	449

What aggravates the allowing of such a serious loss of life as shown above, is the recognised fact that in nearly all cases deaths by falls are admitted to be preventible. This to some extent was shown to the Select Committee on Mines which sat last year, for by their 11th resolution they adopted a rule prohibiting the deduction of the price of timber used in propping from the wages of the miner. That system, it may be said, is already adopted in many districts, more especially in Yorkshire. Still, notwithstanding that allowance, we find that the deaths in that county have increased, for whilst in 1865 they were only 22, in 1867 they were 41. It is, therefore, plain that the recommendation of the Committee, if carried out, would not act as a preventive, so that we must look for some other means for accomplishing the object desired.

The subject, we may say, has not been lost sight of by the Inspectors of Mines, as it will be found that for several years past they have drawn attention to it in their reports, but, as appears from the returns, without effecting any good. Yet, although they laid down no system which could be generally acted upon, even for lessening the mortality, nearly all of them made suggestions which, had they been adopted, would have tended in that direction. What appears to be wanted is some absolute provision which can be enforced, and the neglect of which would be punishable, for in all collieries there are men so reckless and thoughtless that to save a little trouble they would endanger the lives of others as well as their own. This was forcibly put by Mr. HIGSON two or three years ago, when he stated that many of the deaths, from neglecting to set sprags and props, were the result of "ignorance and recklessness;" and seeing that persons of such character were employed in every mine, "there was no hope that they would ever disappear, although they might diminish." Since those remarks were written, however, so far from diminishing, the deaths have largely increased. Others of the Inspectors have expressed similar views, and in addition assert that many of the deaths are owing to the rules and regulations for working in mines not being complied with, and that the only means in such cases that can be at all effectual is the direct supervision of those in immediate authority.

Although in the reports of the Inspectors of Mines, just issued for 1867, the subject of the loss of life by falls of roof and of coal is not so fully noticed as in those of some previous years, still special reference is made to them by several of those officials, and which will forcibly illustrate the position we have taken. Thus, Mr. EVANS, in his report, says—"Many of those accidents arise from the foolhardiness of the men in not using sufficient timber to support the roof. I have myself seen men at work under the coal, and without the necessary short supports or 'sprags.' It is quite true that from the great demand for coal, and the high rate of wages, many inexperienced hands find their way into the collieries, especially when the other trades of the district and neighbouring towns are depressed. But these men ought not to work alone, but always with one or other of the more experienced miners." Mr. EVANS is, undoubtedly, correct with regard to the large number of persons, including agricultural labourers, furnace-men, and even weavers, who obtain employment in our coal mines; but we certainly cannot agree that much safety can be assured by allowing such persons to work with the experienced hands. We too often find, on the contrary, that the oldest and most experienced miners are not always to be relied upon, for it frequently happens that their very experience, and previous immunity from accidents, make them reckless. Mr. WYNNE, on the other hand, suggests a means for preventing accidents from falls which, if it could be carried out, would act as a preventive. It is simply to set sprags and props every 6 feet, whether wanted or not, and to have a rule to that effect enforced. He also states that a prosecution now and then, where the rule was evaded, would have a very beneficial effect. Like Mr. EVANS, he advocates the providing of plenty of timber, and direct supervision by the officials. The latter, we fancy, would not be such an easy matter, especially in collieries employing some hundreds of men. Another of the Inspectors, Mr. BROUGH, also considers that the fatalities arising from falls would be greatly mitigated by the use of more timber. Speaking of the treacherous character of the roof in his own district, he says—"On its being tried by a pick or other tool, it will sound like thick cast-iron, or like rock of vast depth, yet a minute after a fall will take place. Under these circumstances," he proceeds, "I cannot do less than urge that the rules be so far changed as to lead to the setting up of much more timber. If a place on inspection by workmen or deputy looks as if one prop would do, put two there at once; if it appears to require three, set half-a-dozen, and so on, as the timber can be used over and over again." That the not putting up a sufficient number of props has been the cause of a great many deaths from falls there can be no doubt whatever; and one of the Inspectors states that one or two persons were actually found working in a place where there was no timber whatever in the roof, and which resulted in one of them being killed. The acting deputy of the pit was actually aware of the fact that there were no props used in the place. This fact forcibly illustrates the little trust that can be put in experienced persons, as we have before stated, as that very experience too often leads them to disregard ordinary precautions for ensuring safety, and which, in many instances, would be taken by a timid person of less practical knowledge of mining.

The views above enunciated as to the necessity of props being set at certain limited distances are endorsed by several other of our Government Inspectors; for Mr. BAKER, in alluding to the deaths from falls, says "that the great mortality can and should be lessened admits of no doubt whatever; but," he proceeds to state, "I fear that, without some *legislative enactment, or special rule*, limiting where practicable the distances of supports by timber, it will never be satisfactorily diminished." This view seems to us to be the most likely remedy suggested, but we cannot but think that, the subject having once obtained prominence, other remedies of a practical character will be brought forward. Already, in the Newcastle district, persons are specially appointed to set the sprags and props; and, although the system works well, the district still shows that deaths are frequently caused by the falls. Therefore, in concluding our notice, we cannot help reverting to the fact that, with all the precautions so far taken, and with all the remedies suggested, there still stand out in bold relief the figures showing that last year more deaths were caused by falls of coal and roof than there were by explosions. Sufficient, therefore, we hold has been shown to call for immediate action with a view to devising the best means for the prevention of deaths by falls of roof and coal in collieries. Unlike explosions, which are often the result of sudden issues of fire-damp, which cannot by any possible means be anticipated or provided against, falls of roof and coal resulting in the death of a large number of workmen are admitted to be caused by the recklessness, neglect, or ignorance of the men themselves. Such being the case, and as some tolerably certain means have been indicated which would at least have the effect of greatly diminishing the deaths from such causes as we have alluded to, we hope the subject will be taken up by those in authority and power, so that some scheme will be adopted ensuring the sanction of Parliament, as by such means alone do we expect to see any practical measure carried to a successful issue.

As an illustration of our position the following, taken from the *Leeds Mercury*, of Wednesday, will show that our remarks have been accurate to a degree:—

"On Tuesday Mr. Emsley, the borough coroner for Leeds, held an inquest on the body of George Robinson, a miner, 22 years of age, who was employed at the Mill Shaw Colliery of the Low Moor Company. On Saturday morning, whilst the deceased was at work, a quantity of shale gave way, and, falling upon him, so fractured his skull as to cause death in about 20 minutes afterwards. The evidence showed that in order to economise time and save himself a little trouble the deceased had not inserted a sufficient number of props, and that the accident was entirely attributable to his own conduct. Verdict, 'Accidental Death.'"

"INSPECTORS'" REPORTS, AND EAST WHEAL GRENVILLE.

SIR,—The Journal of last week contains two or three letters complaining of the attempts to depreciate the Prince of Wales Mine by the circulation of reports of a most questionable character. The nature of those reports is mild and truthful compared with those which have been circulated respecting East Wheal Grenville. As your correspondent, "Enquirer," truly observes, the shares were first heavily "beared," and then reports were concocted which, if they contained a particle of truth, would have made the discharge of our agents an immediate necessity. I have, however, this week seen a report from Captain Daw, of Carn Brea Mine, confirming our agent's reports in every particular, and giving a most encouraging view of the future of the mine. This, from such an experienced and disinterested man as Capt. Daw, is highly satisfactory and gratifying. The shares in the mine are still "beared" to an enormous extent, and we shall, doubtless, continue to be favoured with all sorts of damaging statements and reports. My co-adventurers will best consult their own interests by treating all such rumours as but unprincipled attempts to further the share transactions of a class of men who never contribute a sixpence to the advancement of legitimate mining, and whose sole business of life is to depreciate the property of honourable enterprise, and by every kind of questionable procedure to prevent it obtaining the position to which success entitles it.

The mine has just sampled upwards of 100 tons of copper ore—a fine sampling, considering that for the past three months the chief operation in the mine has been the opening of the ground between the 110 and 75 fm. levels for the purposes of ventilation and stoping. In a day or two this work will be concluded, and there will then be 35 fathoms of ore ground in height to be taken away, and the agent will be able to push forward four levels—the 110, 95, 85, and 75. It will thus be seen that from these points alone the future returns of copper must considerably increase, and if the 65, 55, and 45 fm. levels prove successful, of which there is scarcely a doubt, the mine would quickly become a permanently paying property. We should not forget that a few years since West Basset Mine, on the same run of lodes, and from a similar lode to East Grenville, "caunter," made 160,000*l.* profit, and at one time commanded a market value of 300,000*l.* AN OLD ADVENTURER IN EAST WHEAL GRENVILLE.

London, Oct. 21.

PRINCE OF WALES, OR ANY OTHER MARKET MINE.

SIR,—Generally there are two sides to a "sign-board," and in the Mining Market they cannot be better illustrated than by a mad, puffing "bull," who would extract the last penny out of the confiding public to extricate himself from his own financial difficulties; and a growling "bear," who at times suffers severely from his impulsive conduct, but on the average depends on the well-known saying that "Victory is given to him that can wait," thereby securing himself, and probably saving many from ruin. Having no speciality for either of the animals, we forward our agent's unbiassed report of Prince of Wales Mine, leaving it entirely for our clients and shareholders to act for themselves, either to increase or decrease their holding, after comparing notes in your last week's replies to a Mr. Tonkin's report. By-the bye, this Mr. Tonkin, only known to us casually, inspected Chiverton Mine, and strongly recommended a purchase at 30s. per share, since which shares advanced to 7¼. Where are the accusers here? Such is mining. "Who is right?" WARD AND JACKMAN.

Cushion-court, Old Broad-street.

Oct. 16.—The engine-shaft is sunk to the 65 fm. level, perpendicularly through the country. The lode is reached by cross-cutting south. In the 65 the distance of the lode from the shaft is about 7 fms. The 65 is driven west 17 fms.; the lode is standing in the back of the level for the whole distance; it is orey throughout, and will work at moderate tribute; the lode in the present end is 3 ft. wide, worth 22*l.* per fathom. The 65 is driven east of shaft 20 fms., as in the western end the lode is standing entire in the back, and is of a similar character and value. In the present end the lode is 3 ft. wide, worth 18*l.* per fathom. In the 55 fm. level end, driving west, the lode is small and poor, and has been so for the last 5 fms. driving, previous to which, however, the lode was very productive. The 55 fm. level end east is driven about 55 fms. from the shaft; the lode in the end is 18 inches wide, of a kindly appearance, but poor. The 45 west is driven 35 fms.; lode poor and unpromising. A winze is sinking below the 55 east, down about 4 fms.; the lode, for 3 fms., was worth from 15*l.* to 20*l.* per fathom, but it is now worth only 10*l.* per fathom. I would remark that the lode here, as throughout the mine, is very changeable, making rich bunches now and then, and afterwards becoming of less value. As soon as the winze in the 55 is holed to the 65 a good profitable piece of ground will be opened for stoping. In the 55 they are driving a cross-cut south to cut what they call a new lode, gone off in the 45 fm. level. In my opinion it is very doubtful whether they will discover anything of value, as it appears to me that what they have in the 45, and which induced them to drive the 55 fm. level cross-cut, is only a floor, and will, in all probability, die out in the country. Although the lode has fallen off in value in the last 10 fms. sinking, still I think there are strong inducements to sink the engine-shaft deeper. The character of the lode in the two bottom ends leads me to think that should they resume the sinking of the shaft good

results would follow. If they want to continue their returns for any long period they must endeavour to discover something deeper by sinking the shaft. It is a pity, I think, they suspended sinking at all. The ore ground is limited in length. All the ends above the 65 are driven into poor ground. It would be impossible to give any reliable estimate of the reserves of the mine, considering the bunchy nature of the lodes, and any such attempt to value the concern must be entirely guess work.—W. Rowe, Wheal Seton.

"HONOUR TO WHOM HONOUR IS DUE."

Sir,—On looking over the report of the meeting of Dolcoath Mine, in last week's Journal, I was pleased to read of the improved prospects of that celebrated mine. The report, however, reads as if the manager, Capt. Josiah Thomas, was *alone engaged* in bringing about such good results. As it is stated—"All honour is due to the successful efforts of the manager, Capt. Josiah Thomas;" and again—"Nothing but his energy and zeal could have achieved so much." Now, in the name of common sense, where were the underground agents, and what were they doing during the time that all the praise is given to the manager? Every practical miner knows that in such an extensive mine as Dolcoath the daily and nightly agents are virtually the working managers of the mine, and for their lesser remuneration do more by their constant labours and efforts to bring about good results than the agent who is named or called the manager. This state of things ought not to be; and mining companies would do well to pay more attention to the remuneration and commendation of their hard working agents, and thus render—"Honour to whom honour is due." An Old Miner.

Stoke Climsland, Oct. 21.

THE MINING REGION OF NEVADA, U.S.

Sir,—Believing that a few facts in relation to the mining region of this State would be of interest to the readers of your invaluable Journal, I take the liberty of sending you first a brief topographical description of what is known as the "Great Basin," and the annual yield of a few of the leading mines located on the Comstock lode. Then will follow in order the several mining districts which are attracting the attention of capitalists from all parts of the world.

The "Great Basin," of which Reese river is the centre, is one of the most extensive mining districts ever discovered in ancient or modern times, not excepting Mexico or Peru. It is generally conceded by explorers that the Great Basin, bounded on the west by the Sierra Nevada mountains, and on the east by the Rocky mountains, is one vast field of mineral deposition. It is the broadest portion of the great mineral belt running along the western shore from the northern to the southern end of the American continent. Crossing this plateau are many mountain ranges, the most of which have a northerly and southerly course, being separated from each other by valleys from 5 to 20 miles wide. These mountains have an absolute height, varying from 5000 to 12,000 ft., being from 1000 to 8000 ft. above the common level of the country. This alternation of mountains and valleys is preserved with great uniformity throughout all parts of the Great Basin, more especially in the central and eastern portions. In some parts of the country the mountains, instead of running in parallel chains, are broken into confused and detached masses, their longitudinal axis conforming towards no common direction. The sides of these mountains are everywhere cut by deep ravines or canons, the most of them running from crest to base, and usually at nearly right angles with their general course. As in the Sierra Nevada, these interior ranges contain a few high ridges and peaks, upon which, in places sheltered from the sun, or where deep drifts have been formed, the snow lies throughout the year. All of the rivers in the Great Basin, except the Colorado, sink in the sand and lose themselves, none running to the sea. Although some of them run long distances, with a great volume of water—as the Humboldt, Carson, Walker, and Truckee—all run into shallow lakes and sink. Evidence showing that in former times water was much more abundant than at present is found throughout the basin.

Gold and silver are the only metals mined at present, but when this country is connected with others by railroads, and capital introduced to develope its mineral resources, then nearly all the metals known to commerce will be produced in unlimited quantities. This great basin, now known as the State of Nevada, has produced in bullion in the past seven years the sum of $76,000,000. In the year ending 1867 the State of Nevada produced bullion to the amount of $25,000,000, and this sum, already large, is rapidly increasing from year to year as the work of exploitation is carried on from one newly-discovered district to another. So rich and vast a field for mining enterprise never was known before in the history of man, and it is safe to infer that European and American enterprise, directed by modern science, will produce greater wealth than the world has ever witnessed. The immense profits realised by working companies here furnish practical evidence of the fabulous wealth of Nevada. The following are a few companies on the celebrated Comstock lode, and the total amounts paid by each company in dividends in the year 1867:—Savage, $1,600,000; Hale and Norcross, $440,000; Imperial, $380,000; Yellow Jacket, $300,000; Chollar Potosi, $420,000; Kentuck, $505,000; Crown Point, $264,000; Gold Hill Quartz, Mineral, and Mining Company, $33,000; and the Empire Mill and Mining Company, $49,000. There was a great increase in the product of many of the Comstock Mines during 1867. Thus, twelve of the most important produced in the first half of 1866 an aggregate value of bullion of $1,926,707; in 1867, in a similar period, their product was $7,043,343. Their market value has increased also in a most striking manner. The almost daily discoveries of new mining localities, rivalling in richness the celebrated localities of Virginia and Gold Hill (through both of which places the Comstock lode passes), give ample proof that the mineral resources of this State are even at this day comparatively unknown. Five years ago Virginia and Gold Hill were thought by many to possess the only really valuable mines of the State, and the Comstock lead or lode to contain the only silver-bearing quartz in this country. The short time intervening has demonstrated that almost countless ledges or lodes are found in the various localities of our State, that promise as ample a yield of the precious ores as have ever heretofore been realised from the famous Comstock. Miner.

Austin, Nevada, Sept. 26.

PESTARENA UNITED GOLD MINING COMPANY.

Sir,—As a shareholder I take this opportunity of thanking Mr. Edward Cooke for having, by his well-considered remarks in last week's Journal, performed an essential service towards all interested in the success of this enterprise. The facts which he has submitted cannot fail to dispel some groundless apprehensions which, if the price of the shares is to be accepted as an evidence, would appear to exist among a section of the shareholders as to the position and prospects of the different mines. It is true that the report of Mr. Arthur Dean, which so thoroughly confirms all previous opinions as to the great value of the property, points to a further expenditure of 15,000*l.* in order to secure the realisation of *larger* dividends than will probably accrue if the operations are not extended to the scale suggested by Mr. Dean. If at the ensuing general meeting the shareholders should determine to incur this expenditure, which will be so directly productive in its character that "*there will be realised a direct benefit per annum to the extent of* 6000*l.*," they will, after all, only be carrying out the plans, as far as their extent is concerned, originally contemplated by the late manager, Chev. Franefort. The uncalled-up capital of 2s. 6d. per share upon the 68,000 issued shares will alone yield 8500*l.*, or more than one-half the computed amount; but, as stated by Mr. Cooke, there are in the hands of the directors something like 12,000 shares, which, I think, might be advantageously issued to the shareholders *as paid-up shares upon the payment of (say)* 1*l. per share*, thereby giving the proprietors a substantial bonus in return for their commendable perseverance. By the adoption of this plan, which I submit is both equitable and feasible, more than 20,000*l.* would be readily raised without resorting to the somewhat objectionable course of issuing preference shares or mortgage bonds.

It is, I think, to be regretted that the directors had not accompanied the elaborate and able report of Mr. Dean with some sort of circular foreshadowing the policy they were likely to propound; had they done so, the shareholders would have been placed in a much better position to judge of the actual prospect of their affairs. It was no part of Mr. Dean's duty to inform the shareholders, for instance, that there were in the hands of the directors 12,000 unissued shares. In the absence of such information but one conclusion could be come to—that if it were deemed desirable to expend the 15,000*l.* some description of preferential stock must necessarily be issued, the obvious effect of which would be to permanently depreciate the market value of the ordinary shares. But when a shareholder knows—and certainly all shareholders should know it—that there are more than a sufficient number of unissued shares to meet the maximum of the estimated additional outlay, the case is altogether different. Inasmuch as the issued shares, instead of being adversely, are *de facto* beneficially affected, and more particularly if my suggestion should be adopted of rateably allotting the unissued shares to the present proprietors at a discount.

As to the progressive value of our property, that is being proved (if proof were wanting) as the development is continued, for I find by the report which appeared in last week's Journal that, notwithstanding the interruption to the works by the late floods, upwards of 560 ozs. of gold were produced in about 20 days' working. Without wishing to make any invidious comparison, I cannot help observing that there is another gold mining enterprise, the shares in which have continued to advance in market value since it became known that the remittance for the month amounted to 495 ozs.—*Oct. 21.* A Shareholder.

Important to Engineers and Users of Steam Machinery—Every Boiler should have a Feed Pump, independent of the Steam-Engine.—This is the practice of the leading firms of engineers, who are now using exclusively the Donkey Pump manufactured by Alexander Wilson and Co., Engineers, Vauxhall Ironworks, Nine Elms, London, S.W.

The Tavistock Iron Works.—Messrs. Nicholls, Mathews, and Co. have just celebrated the opening of these works by giving a dinner to upwards of a hundred of their customers. The chair was very ably filled by Mr. T. Nicholls, and the vice-chair was occupied by Mr. J. Mathews. Among the toasts drank were—Success to the Works; Mining; and the Town and Trade of Tavistock, all of which were ably responded to. A very pleasant day was spent, all present wishing every success to the spirited proprietors.

Cures of Asthma, Consumption, and Coughs by Dr. Locock's Pulmonic Wafers.—From Mr. E. H. Barnish, Market-place, Wigan:—"Pray forward me, as speedily as possible, ten gross of Dr. Locock's Wafers, which have now obtained a remarkable celebrity in this town and neighbourhood. Were it at all necessary, I could send you scores of testimonials from parties who have been entirely cured of coughs, asthmas, &c., after years of suffering, by your inestimable medicine." They give instant relief. To singers and public speakers they are invaluable for the voice, and have a pleasant taste. Price 1s. 1½d. and 2s. 9d. per box. Sold by all chemists.

Holloway's Pills and Ointment.—Determination of blood to the head, flushings, palpitation, and shortness of breath are cured by these grand regulators of the heart's impulse. Under Holloway's grand specifics the current of blood throughout the body becomes steady and unchanged by the passing thought—hence the suffusion of the head and cheeks is avoided and nervous embarrassment prevented. They in like manner remove excessive sensibility, so often the opponent to ease and grace inherent in the healthful and strong-nerved frame, and eradicate the doubts of the nervous. In intellects declining from intense study, free living, or over anxiety, no equal remedy is attainable. Without exaggeration, they give muscular energy to the paralysed and ease to the pained.

Meetings of Mining Companies.

GREAT SOUTH CHIVERTON MINE MEETING.

The general meeting of shareholders was held at the office of the company, 2, Bucklersbury, on Thursday,

Mr. William Hall in the chair.

The Secretary, having read the notice convening the meeting and the statement of accounts, which showed a debit balance of 125*l.* 12s. 9d., was requested by the Chairman to read the report of Capts. Nancarrow and George, which he did as follows:—

Oct. 21.—Since the last general meeting the new shaft has been holed, cut down, and completed to the 20, and we are now driving the 20 end east. There is lead ground already opened for several fathoms about this shaft, and is now being opened, that will pay for working, and which is evidently distinct from and better than any seen to the westward at this level. The winze below the 30 is now getting into the rich run of lead seen in the rise below. There is a fine-looking lode in the rise above the 40, which now yields ⅔ ton of lead per fathom. The 40 is driven west into the western part of the ore ground seen in the 30. There is a good lode gone below the level, and it is in this ground that the before-mentioned rise is being put up. There is a strong leady lode in the end, and it appears to be driving over valuable lead ground. The 40 is driven east of cross-cut 7 fathoms, and will soon be under the rich blende driven through in the 20, and where lead ought to be found, and will be pushed on towards the shoot of lead dipping west from the new shaft. The 50 cross-cut was driven 15¼ fathoms north before it reached the lode, and we have driven 6 fathoms westword on its course. Its appearance is better than it was in the 40, but we had to drive further west in the 40 before we got into the lead than we have yet driven in the 50, according to its dip. The lode in the end is changing, and letting out more water, and there can be no doubt but that we shall get into the lead shortly. The lead ground in the 40 is 18 fathoms long, and it is likely to be much longer and better at this level. The 50 east has recently been driven through a promising lode, but does not yield anything to value. A most important thing as connected with this mine is the recent discovery in Wheal Chiverton, for so far as it can be traced the lode now so rich there will cross our lodes about 50 fathoms east of our new shaft, at which point they are likely to be very valuable. The 20 fathom level is now being driven east towards this as fast as possible, and if the ground continues as it now is it may be reached in six months. Considering that we are all but into the lead in the 50 fathom level west, the prospect of getting into other shoots in the 40 east, the intersection of the Wheal Chiverton rich lode east of the new shaft, and that this lode extends through this sett for half a mile in length, we think that the prospects of the mine were never so good as now, nor the value of the mine so great, and that there never was such a probability of speedily bringing it to a profitable issue.—J. Nancarrow, J. George.

The Chairman said he could not doubt that all present would feel as well satisfied with the report, and with the improved prospects of the mine, as he did. He came to the meeting fully persuaded that he should hear a good report, but he must say the one just read far exceeded his expectations. (Hear, hear.) They had every reason to believe, looking at the various points of the mine, that all the expectations they had formed were about to be realised, and that the Great South Chiverton would prove to be one of the very rich mines in the productive district in which it existed. He believed that the managers were doing all they could to work the mine in the most economical manner, and up to the present he could not see any cause to complain.

Mr. Henry Mansell concurred with the Chairman in the cheerful view which he took of their position. The mine had continued to improve, and was evidently to approach a productive state, and he thought they might fairly include amongst the encouraging circumstances the splendid discovery recently made in Wheal Chiverton, in a lode which was said to run through the Great South Chiverton. (Hear.) If that were so it would add greatly to the value of the mine from an altogether unexpected source. (Hear.) He was, therefore, glad that he had placed his friends in the mine, believing that they will soon be well rewarded.

Mr. Chapman (the secretary) said he had a letter from Capt. Nancarrow, in which he said that they had very carefully traced the rich new lode discovered at Chiverton, and could not doubt of its coming into the Great South Chiverton. The 20 fm. level, which they were now driving east, would reach it about 15 fms. deeper than they had it in Chiverton, where it yields 3 tons of lead per fathom, and, as all the valuable lodes in that district improve in depth, they expected to find it even richer than at Chiverton, for, geologically considered, nothing could be better situated than these lodes at their intersection. (Hear, hear.) He (Mr. Chapman) thought they might, therefore, fairly say that their prospects had greatly improved since their last meeting. The managers' report, just read, referred very minutely to all the operations and prospects of the mine. It was expected that the lode at the 50 west would have reached the ore ground gone over in the 40, but it had taken a more perpendicular run, which is considered favourable for making the lead richer than if it had more incline; therefore, although the lead had not yet been met with, it was not to be regretted. The indications now in the end are decidedly in favour of reaching it within a week or two, and as the best part of the lode at the 40 is in the bottom of the level, there cannot be a doubt as to its proving valuable. The discovery at Chiverton being rich, and quite a new feature, and considering the chances in the 40 and 50 east, there cannot be a question that those who have been fortunate enough to secure an interest will be well repaid for their small outlay.

The Chairman moved that the statement of accounts, and the report, be printed and circulated among the shareholders.——A Shareholder seconded the resolution, which was carried unanimously.——The Chairman suggested that the next business would be to make a call, and he understood from the secretary that 2s. 6d. would be sufficient.——Mr. F. W. Mansell hoped that they would make a call adequate to all the demands that would be made during the next three months.——The Secretary expressed his conviction that 2s. 6d. would be sufficient, as the next three months' costs would be about 700*l.*, including merchants' bills.

Mr. F. W. Mansell, in moving that a call of 2s. 6d. per share be made, stated his belief that the shareholders had a valuable property, only requiring a little further development. He himself was perfectly satisfied with the mine, having visited it several times, and was present at the last general meeting, held on the mine in July last. The prospects then were very encouraging, and the piles of lead at surface gave sufficient indications that the mine would ultimately prove a great success. He looked forward with great interest for the cutting of lead in the 50 west, and the favourable indications of the lode in the 40 were sufficiently strong to warrant the belief of a valuable discovery in this level.

Mr. Sandy seconded the proposition, and expressed his satisfaction with the condition and prospects of the mine, and congratulated the shareholders on the great probability of their participating in early profits. The resolution was then put, and unanimously agreed to.

A Shareholder wished to ask what quantity of lead they had at surface?

The Secretary stated that they had not made an estimate of the actual amount, but there were several piles of rich lead already raised, and there must be several tons, considering that the lead ground in the 40 has been worked for 18 fms. in length. The managers had not stoped any ore ground, so that what is now at surface is only from driving the levels. He also wished to state to the meeting, as there were several recent shareholders present, that they had paid to the lords over 300*l.* in advance of dues, so that when lead is sold it will be a long time before they have to pay the lords anything on account of dues, which were 1-18th. This money was paid on starting the mine, he, therefore, felt it desirable to inform those who have recently taken an interest in the mine.

The committee was then reinstated, with the addition of Mr. William Hall.

It was resolved to call a special meeting for Nov. 12, to forfeit all shares in arrear of call.

The meeting then separated, well satisfied with the prospects of early success.

PENHALLS MINING COMPANY.

The quarterly general meeting of proprietors was held at the company's office, Austinfriars, on Tuesday,

Mr. W. Goslett in the chair.

Mr. King (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

The statement of accounts showed—Tin sold during the quarter, 240*3l.* 16s., and a profit on the quarter's working of 345*l.* 3s. 10d.

The agents' report was read, as follows:—

Oct. 17.—In again presenting you with the general quarterly report of this mine, we have first to state that the diagonial shaft is completed to the 70, skip-road fixed on the underlie, all in readiness for fixing in the perpendicular, and the plat at the 70 nearly cut. Some 10 to 12 ft. above the bottom of the shaft the lode, by its more than ordinary flat underlie, left the shaft; in cutting the plat we again found it 6 ft. north, and on the west side much the same as when it left the shaft—worth 10*l.* per fm., but on the east side it is smaller, and not very productive. In the 60 east we have extended on the branch referred to in our last quarterly report 2 fms., and find no improvement; we have, therefore, set the men to continue on the cross-cut south to make a little further search in that direction, the Downright lode being not far south at this point. In the 60 west the lode is large, and producing some tinstuff, but scarcely enough to value; this end has been extended 15 fms., and we think, from its appearance, that it is near either a cross course or gossan. We have also during the past month driven a short distance on a branch, south of the engine-shaft, at this level, but so far we find it very small and unproductive. On the bottom of one portion of the new lode, between two gossans, at about 4 fms. below the 50, from the rise above the 60, we have commenced a level, and extended it east 2½ fms.; in this drivage the lode has been worth from 8*l.* to 10*l.* The cross-cut north at the 50 has been extended 15½ fms. on the west side of the great cross-course, without as yet finding any lode; but from the fact of frequently finding some good tinstuff as we proceed by the cross-course, we have been continually expecting to meet with it. The 45 east has been extended 5 fms. through ground varying in value from 7*l.* to 10*l.* per fm., the present end being worth 8*l.* The 44 east, on the Pink lode, during the early part of the quarter passed through some productive ground, but latterly it has been unproductive. The winze below the 40, on the new lode, is not quite so productive as it has been, being now worth 5*l.* per fm. The 40 west, on the Pink lode, has been further extended 7½ fms., and throughout has produced low quality tinstuff; the lode generally large, and ground good. At the Pink Mine the Shop shaft has been sunk on the course of the lode below the 30 fm. level 4 fms., through a lode worth from 8*l.* to 10*l.* per fathom; some 20 fms. to the west of this shaft we have a stope at work, where the lode is worth from 12*l.* to 15*l.* per fm. The 25 and 20, west from Shop shaft, have both been cleared to the end, about 15 fms., where we found the lode worth from 6*l.* to 10*l.* per fm.; therefore, we have in all probability a large and profitable piece of ground laid open in this direction. The various pitches throughout the mine are looking favourable, and the tribute ranging from 2s. 6d. to 14s. in 1*l.*, at a uniform standard of 45*l.* per ton of tin. As soon as the sumpmen have finished the plat at the 70, and have got the ends on the course of the lode a few feet off the plat, we think it advisable to resume the sinking below this level, and also think it important to continue sinking Shop shaft with all speed below the 30 until the lode meets with a gossan, especially as this shaft is quite dry. We have in the course of erection a changing dry for the miners; this, together with an extra shed or two over important portions of the floors, hitherto unprotected, will probably comprise all the new work for the quarter, save the completion of the skip-road in the engine-shaft. On the whole, the prospects of the mine are very satisfactory, and we think during the ensuing quarter we shall be able to raise 45 tons of tin at a monthly cost of about 700*l.*, which will leave a good profit to the adventurers.—S. Bennetts, W. Higgins.

The Secretary said that the report just read must give great satisfaction to all interested. The mine on October, 1866, had a book debt of 1200*l.*, and has since expended in additional machinery upwards of 1000*l.*, making 2200*l.*; no call has been made, but the amount discharged by profits, with a credit balance now in hand. He could safely assert that there were very few mines in the county of Cornwall that had passed through the recent period of distress with such results. The agents promised that 15 tons of tin should be sampled per month during the ensuing quarter, which, at 60*l.* per ton, would give them 2700*l.*, and as the cost for that period would only be 2100*l.*, this would give 600*l.* profit, which, with the 200*l.* now to their credit, would make 800*l.* available for a dividend at the next meeting, and thus place the mine in the Dividend List.

The Chairman remarked that he had much pleasure in meeting his co-adventurers on the present occasion. Considering the fearful ordeal mining has passed through, it was a matter of congratulation that they had weathered the storm, and were now in a profitable position

Mr. Reece wished to remark that he was one of the oldest shareholders in the mine, and had always the greatest confidence in the ultimate success of the undertaking. The greatest economy had been practised throughout, with efficient working, and much credit is due to Mr. King for having so strongly recommended the working of the Pink part of the sett, which proved a valuable addition, and he had confidence in the staff of agents.

Mr. King stated that he took a lively interest in the concern, and that hardly a month passed without his visiting the mine, and it was satisfactory to him, as promoter of the Pink part of the sett, the great success that had attended the unwatering of that mine. They had already discovered ends in whole ground of considerable value, and were sinking Shop shaft in a good run of tin, and the prospects of the mine far exceeded anything that he had any idea of.

The committee were re-elected, and a vote of thanks to the Chairman terminated the proceedings.

WICKLOW COPPER MINE COMPANY.

The half-yearly meeting of shareholders will be held this day (Saturday) at the company's office, Grafton-street, Dublin, when the statement of accounts and the directors' report will be submitted.

The produce of the mine for the half-year ending September was—Precipitate, 5 tons, 75*l.*; XX pyrites, 500 tons, 525*l.*; pyrites, 12,500 tons, 10,000*l.*; smalls, 1000 tons, 250*l.*; and iron ore, 7000 tons, 2697*l.*=13,547*l.* The profit on the half-year's working was 4671*l.*

The directors have again to lament the depression of the alkali trade. Owing to the limited demand for pyrites at the beginning of the half-year, and the reduction in the price of the ore, the directors deemed it advisable to decrease for a time the customary raisings of pyrites, and to operate to a larger extent upon the deposits of iron ore—the selling price for the latter yielding a rate of profit fully equal to that obtainable for the former. The accounts show the propriety of this policy, a considerable saving having been effected in the general expenditure, as compared with last half-year, while the gross raisings have rather exceeded those of the same period. Of late a decided improvement in the demand for pyrites has arisen, affording an outlet for a large quantity of the accumulated stock; the directors, not unreasonably anticipating a continuance of this somewhat encouraging system, hope it may be prudent before long to resume the pyrites working on a more extended scale. The daily increasing use in this country of artificial manures—in the production of which the acid obtained from sulphur ore is a primary element—has induced the establishment in different parts of Ireland of extensive works for this branch of manufacture; with those already at work, and some approaching completion, the directors have entered into satisfactory contracts, and look forward with confidence to a larger home trade for the future. It is reported that in the coming year a brisk competition may be expected between the principal producers of foreign pyrites, the result of which it is impossible to foretel; but the board will be guided by circumstances as they may arise in studying the most prudent course to be adopted for the protection of the company's interests.

The board appointed Mr. Thomas Worthington director, in the place of Dr. Edward Wright, resigned; and Dr. E. Perceval Wright has been nominated auditor in place of Mr. Worthington. The estimated profit for the half-year amounts to 4671*l.* 0s. 11d., out of which (after allocating 250*l.* to the Indemnity fund), the directors recommend that a dividend be declared, at the rate of 20 per cent. per annum, being 5s. per share (or 4250*l.*), payable to the shareholders, free of income tax, on November 2, and that the surplus 171*l.* 0s. 11d. be added to the reserve fund.

The report of Mr. Edward Barnes, the resident managing director, describes the condition and development of the mine as generally satisfactory. The production of pyrites, as in the previous half-year, has been seriously affected by the continued bad state of the market, coupled with the difficulty of selling any but ores of the best quality. They have, however, by increasing the raisings of iron ore (which is at present as profitable as the pyrites), brought up the total raisings to about the same number of tons of ore as in the half-year ending March 1 last. Considerable repairs and additions have been made to the pit-work, and the improvements to the dressing-floors have been completed. They have worked the iron ore deposit extensively, and raised 7000 tons. During the half-year the south, or overhanging side, of the excavation (which was expected and provided for), by increasing pressure upon the soft layer of pyrites under it, caused a portion of the latter to give way, and a large quantity of iron ore to settle down into the worked-out parts of the lode, which will all be available in the ordinary course of mining. In the meantime, all the principal reserves continue to stand firm and uninjured. The tutwork has been—sundry drivings, 48 fms 1 ft. 6 in.; sundry sinkings, 32 fms. 3 in.; and sundry risings, 2 fms.=82 fms. 1 ft. 9 in. The mine with the shafts, levels, and the machinery, are all in good working order, and a comparative review of the working expenses, with the raisings and general operations, will, afford satisfactory evidence that with an improvement in the price and demand for their ores, a corresponding increase of profit and well doing will necessarily take place.

FOREIGN MINING AND METALLURGY.

As regards the Belgian coal trade, it may be observed that according to information collected from good sources the crop of beetroot obtained in 1868 will be inferior to that of former years. Considering the remarkable character of the past season, there can be little doubt that this is the case, and the result will exert an unfavourable influence on the tone of the local coal markets; there is no ground, however, for much alarm, as the deficit indicated does not attain very serious proportions. Upon the whole, the general state of industry appears to be improving, and the demand is increasing; stocks, however, are still very considerable. The Charleroi coal trade held a meeting last week, when a discussion took place with reference to the railway tariffs question, and the complaints addressed on the subject to the Department of Public Works. The great majority of the members present were of opinion that the Association must protest in common with the Charleroi Forgemasters' Association against the policy pursued by the Government. The two great industries of the Charleroi basin have thus united for the purpose of protesting against the course taken by the administration of the Belgian State Railways, which, it is complained, changes at its pleasure the economic conditions of one of the most important industrial groups of the country, in order to compensate for the losses occasioned by an exaggerated reduction of passenger fares. Freights from Charleroi remain at 7s. 6d. per ton for Paris; 7s. for Elbeuf; 8s. for Rouen, &c. The Grand et Petit Tas Collieries have been publicly disposed of for 3640*l.* to a new company formed in part out of the creditors of the old establishment.

A piece of intelligence of some importance presents itself in connection with Belgian metallurgy—that the representatives of certain Belgian forgemasters have definitively concluded a contract for 35,000 tons of rails for Hungary, to be delivered in the first two months of 1869; it is understood that this contract has been concluded at a price notably superior to that of a contract for 20,000 tons recently signed for the Galatz Railway. The great question which now, above all other matters, preoccupies the principal Belgian metallurgical group is the difference which has arisen between the Charleroi Committee of Forgemasters and the Department of Public Works on the subject of the additional taxes imposed for the conveyance of heavy goods on the Belgian State Railways. At a recent meeting of the Charleroi committee this question was again brought on the *tapis*, with reference to a letter addressed to the committee by the Minister of Public Works in response to the complaints made. The delivery to the Minister of a new protest was decided on by the committee; this new protest replies to the letter of the Minister in rather lively terms, it appears—that is, in rather strong terms. There is reason to believe, however, that the relations between the Minister and the forgemasters will become milder, as it appears impossible that satisfaction should not be given to the complaints of industry. The Association of Forgemasters has also returned to the discussion of another important question—that of the unification of tariffs, which it examined last year without result. The great variety of tariffs in Belgium is generally considered to be injurious to the cultivation of a larger foreign business, and a committee has been appointed by the Forgemasters' Association to study the subject, and arrive at some practical conclusion upon it. A Belgian paper states that a commission for 73,600 tons of rails has been given to M. Emont de Ville Massot representing several Belgian houses, the names of which have not, however, transpired; the whole affair seems enveloped in a certain mystery at present. The Belgian iron trade appears, upon the whole, to be gradually improving; prices have sensibly hardened, and a quotation of 5*l.* 16s. per ton has been generally admitted by purchasers. Pig is still neglected, and prices remain low, being adversely affected by English competition and a considerable stock. Hopes are entertained—and we should think not without reason—that the improvement which has appeared in iron will not be long in making itself felt in the pig-iron market also. Meanwhile prices remain somewhat feeble, grey casting pig making 2*l.* 16s. per ton; ditto No. 5, 2*l.* 18s. per ton.

Two facts of some little importance deserve to be noted as regards France. The first is the appearance in the *Moniteur* of a new circular from the Minister of Commerce, Agriculture, and Public Works, with reference to warrants; this circular definitely adjusts the period for the export after manufacture of metallurgical products imported free of duty, the time being fixed at three years after the importation of the raw material. The second circumstance worthy of note is a letter addressed by M. Haussmann to the President of the Champagne Committee of Forgemasters, in reply to complaints made by the committee on the subject of the privileged position secured to producers of iron for building who may be established in the *enceinte* of the Paris *octroi*, and who have not to support the duties paid by their departmental competitors. It results from M. Haussman's letter that since 1863 he has been occupying himself with the best means of terminating the present state of things, that he submitted to the Council of State a scheme for a new tariff on iron and pig, and that since then the affair has remained in the same stage, the decision of the Council of State on the subject being still awaited. It appears to be high time that this decision, whatever it may be, should be given. The general condition of French metallurgy continues to improve, and prices are hardening. In the Moselle district pig is run off with tolerable regularity; the works of this group which apply themselves to the production of conduit-pipes

have important orders to complete, which assure them employment for some time to come. The forgemasters and ironmasters of the Ardennes have been applying themselves for some little time past to the production of certain special articles—such as cooking apparatus, stoves, &c. The firms who have thus employed themselves seem to find more profits in this special fabrication than in the production of large castings, such as columns, turn-tables, and pipes. The prices now prevailing for iron and plates in France do not admit of any serious revival in the imports from Belgium. The St. Etienne Collieries Company is making a provisional distribution of 4s. per share for 1868. The Commentry Collieries Company (with which enterprise is associated the Fourchambault, Montlucon, Torteron, and La Pique Forges and Foundries) is paying the balance of the dividend for 1866-7, or 14s. per share. The Montrambert and La Beraudière Colliery is paying a provisional dividend for the exercise 1868, or 4s. 6d. per share.

No improvement is reported in the Essen (Prussia) market for pig; the demand has increased, it is true, but the imports from the Luxembourg are so considerable that they carry on a severe competition with the products of the Prussian furnaces. The rolling mills and the makers of merchants' iron have now some good affairs on hand, but the stocks accumulated have been only diminished by little and little. Prices, instead of rising, have rather fallen, and the increase in the imports will, no doubt, prevent any material advance. The competition of the Luxembourg was comparatively insignificant during the past extremely dry summer; but after the waters of the Moselle and the Rhine have risen they can be utilised over the whole extent of an important navigation, in order to bring Luxembourg pig upon the Prussian markets. Although the quality of the Luxembourg pig may be inferior to that of the Rhenish blast-furnaces, it has all the qualities required in connection with the production of rails. The cost of producing Luxembourg pig scarcely exceeds 1*l.* 15*s.* to 2*l.* per ton—terms on which Prussian blast-furnaces have never produced, and will never produce, pig. The condition of the Essen bar iron market continues to improve. Orders arrive at the works in abundance, and encourage the activity of the rolling-mills producing merchants' iron. The demand has, indeed, increased so rapidly that several producers—among others the New Scotland Company, at Harst, near Steele—not being able to execute orders only in three or four months, have appealed to their clients not to send them fresh orders until the commencement of the new year. Further, several works have announced a fresh advance in prices. Among the orders for rails in course of execution may be mentioned—one for 1630 tons of rails, for the Silesian Railway; another of 5750 tons for the Cattbus and Grassenhayn Railway; and another of 2700 tons, for the Bebra, Hanau, and Cassel Railway; this last order comprised also fish-plates and accessories to the amount of 167 tons. The imports of iron into, and the exports of iron from, the Zollverein in 1866 were as follows:—

	Imports.	Exports.
Forged iron, in bars.....Tons	10,100	.....Tons 5,450
Rails.....	22,350	 19,250
Forged iron	900	 300
Plates	6,000	 2,850
Merchants' iron	15,000	 12,500
Total	54,350	 40,350

The imports of steel in various forms into the Zollverein amounted in 1866 to 18,450 tons, while the corresponding exports from the Zollverein were 42,350 tons.

THE MONT CENIS TUNNEL.

The progress making in the construction of this gigantic enterprise continues to be most satisfactory—nearly three-fourths of the tunnel having been completed, whilst the works are being carried on at a rate which will admit of the completion of the tunnel in little more than two years. The total length of the tunnel will be 13,364 yards, and of this distance there had been driven to the end of September—from the Bardonnèche end 5700 yards, and from the Modane end 3970 yards=9670 yards, leaving 3694 yards to drive. At the present time they are driving considerably faster on the French than on the Italian side, so that there is no reason to suppose that any further important obstacles will be met with. With regard to the machines with which they are driving, each is formed of a pair of bars, about 6 ft. 6 in. long, these bars having placed between them the 3-in. cylinder by the piston of which the boring tool is actuated. The cylinder is not fixed to the frame-bars, but is capable of sliding on them, motion being given to it by a large worm at its hind end, which gears into racks formed on the inner sides of the frame-bars. The cylinder is 3 in. in diameter, and its piston has a rod about 2 in. in diameter, there being thus but a comparatively small annular area on the front of the piston, on which the air continually presses. At the hind end of the frame-bars of the machine is placed a kind of miniature horizontal engine, worked by the compressed air—this engine driving, through a bevil gear, a square shaft, which extends nearly the whole length of the machine above the boring cylinder. This shaft carries a cam, which gives the necessary motion to the slide-valve, which governs the admission of the air to, and its release from, the boring cylinder; and from the same shaft the intermittent rotary motion is given to the tool, and also the necessary advance as the hole is bored. The manner in which the advance of the tool, or rather of the cylinder, is regulated is as follows:—The cylinder is free to slide longitudinally on the frame-bars, these bars having on their inner sides racks, into which a worm, carried on a spindle projecting from the hind end of the cylinder gears. On this same spindle there is a clutch, which is driven by gearing connected to the square shaft already mentioned, and when this clutch is in gear with the worm the cylinder is advanced along the frame towards the face of the rock. As, however, the rock is of unequal hardness, the rate of advance is made dependent upon the rate at which the borer penetrates, in the following manner:—The clutch by which the worm is driven is embraced by a fork formed on a bar, which extends forward past the boring cylinder, and which has at its front end a finger, which is bent so as to catch on ratchet teeth formed on the tops of the frame-bars. Supposing the clutch to be in gear with the worm, and the machine to be at work, the cylinder will be gradually advanced along the frame-bars; but the clutch, being held by the bar just mentioned, and the front end of this bar abutting against one of the ratchet-teeth, cannot follow the cylinder, and, consequently, after the worm has made a couple of turns or so the clutch is worked out of gear, and the cylinder becomes stationary. As the boring goes on, however, the piston makes a longer and longer stroke out of the cylinder, and eventually a projection on its end raises the front end of the finger-bar out of gear with the ratchet-tooth, against which it abuts. As soon as this takes place a spring behind the clutch forces the latter forward into gear with the worm, and the advance of the cylinder again goes on till, the end of the finger-bar coming against the next tooth, the forward motion of the clutch is again arrested, until it gradually works itself out of gear. Each boring machine weighs about 6 cwt., and as the wear and tear to which they are exposed is very severe, it is found necessary to keep from three to four machines in reserve for each one at work.

The boring bars employed are of various forms and of various diameters. The Z and double Z or crown borers are those most used, but for some kinds of rock other forms are found preferable. The holes generally bored are about 1¼ in. in diameter, but some are much larger. In working through some of the very hard quartz it was found that the shots flew back from the ordinary holes without producing any disruptive effect on the rock, and the plan was, therefore, adopted of first boring several holes 4 in. or 5 in. in diameter, and then disposing some ordinary holes round these. When the charges in the ordinary holes were fired the portions of the rock between them and the central hole were blown out, and a cavity thus formed, around which other shot holes were bored. The borers used for the 4-in. and 5-in. holes are of similar form to smaller bars, and, like them, they are worked by the boring-machines, but at a slower speed.

STEAM BOILER EXPLOSIONS—THEIR CAUSE AND THEIR PREVENTION.

An interesting account of a peculiar boiler explosion has been published by Mr. HEAFFMAN, of Breslau. The explosion occurred in the Wusterwaldersdorf Bleach Works, and the boiler was one in which the cloth to be bleached is boiled. These boilers are usually set up in pairs. The cylinders were 6 ft. diameter and 8 ft. high, and made of sheets of ⅜-in. sheet-iron, riveted together in such a manner that the inner surface is smooth, the rivet heads being sunk, and the corners exactly meeting on the inside, the outside well joined by narrow strips riveted on. Both the top and bottom of the boilers were convex. Through the top a pipe for letting in water, lye, or steam entered the boiler, and on the bottom there lay an inner perforated convex bottom, through which the water passes, in order to escape through a pipe in the bottom. In the top of the boiler was a common man-way, through which the cloth was taken in and out; it was closed by means of an iron lid, which fitted into a groove, and was caulked by a braid of hemp, ¾ in. thick and 2½ in. wide. The lid was fastened, as usual, by means of two screws. The iron was only common English sheet, still it should have been able to sustain four atmospheres pressure. Mr. Heaffman considers it probable that the hemp braid did not join perfectly, and the workmen drew the screw very tightly, in order to close the lid, and thereby may have broken the screw, or perhaps the screw broke by the mere pressure, which seems very possible when the poor quality of the iron is taken into consideration. By this means one side of the lid gave way, the steam forced out the loosened hemp braid, and issued through the opening thus formed. Through this escape of steam, and its immense generation, that condition of the water arose to which, in its effect like an electric shock, no vessel is able to offer resistance.

The explosion completely refutes, in Mr. Heaffman's opinion, the theory of those who assert that boilers can only explode when they are in an overheated state, and the oxygen consequently generated by the water comes in contact with the heated sides, or that it is caused by thy contact of cold water with the over-heated boiler, for in this case the boiler was not near a fire at all, but received its steam and heat from a boiler-house standing at some distance. For some 25 years he has observed and asserted that boilers generally explode when the steam is let off too quickly, as in starting the engine, but particularly when blowing out the condensor, opening the safety-valves, &c. In the belief that nothing is more dangerous than to cause a sudden discharge of steam, he has always spoken and written against large safety-valves, which were prescribed by the former Prussian law. For the same reason he also constructed the hollow safety-valves, in which the steam escapes through triangular openings, pointed towards the top, made in the sides of the valves, so that the opening only gradually becomes larger through the increased pressure.

In accordance with a request made by the Association of German Engineers, a commission of the Breslau District Association experimented with a small glass boiler, and found that when the escape-pipes are only gradually opened, and the steam allowed gradually to escape, the generation of steam quietly continues, and the water remains pretty tranquil. But if, on the contrary, the valve is quickly opened, steam bubbles suddenly form all through the water, and rising to the surface place the water in violent commotion. In one of these experiments he watched the manometer, while another man quickly opened the valve to allow the steam to escape. As soon as the valve was opened the pressure fell 3 lbs., but immediately again began to rise, whereupon the boiler exploded. Where it had been in contact with the water it was shattered to powder, which lay around like fine sand. Of the entire boiler only a few small pieces, of the size of a thaler, were left. Afterwards he constructed a similar glass boiler, with a cylinder 7 in. diameter 9 in. long, and to the ends metal bottoms were placed by means of vulcanisation; in the ends were pipes for letting in the steam. By means of a force-pump the boiler was filled with boiling hot water, the valve being left open meanwhile, in order that its sides might become evenly heated. Then half the water was drawn off again, and air let in, and then more boiling water forced in, so that the air was compressed until the boiler exploded, at a pressure of 15 atmospheres. The report was not nearly so loud as at the former explosion, which took place at a pressure of only 3 atmospheres, and the glass only broken into several pieces. This clearly proves that the action of the water on the boiler is the same as would be produced by exploding nitro-glycerine in the water. The effect is like an electric shock, and he is of the opinion that escape of electricity taking place during the issue of the steam is in play. If steam be led into cold water, shocks ensue that are capable of bursting pipes.

With a view to the prevention of similar accidents for the future, Mr. Heaffman suggests, firstly, that in case there is a man-way in the boiler, hemp braid should not be used to caulk it, or else a high rim should be made around the outside of the lid, fitting into the man-way so that the braid could not be thrown out, even if the lid should become loosened. But it is better to employ *lead-caulking*. This is made as follows:—A groove is cast into the lid of the man-way, ½ to ⅝ in. deep and wide, this filled with lead, which is well hammered down, and the surface thus formed is pressed to the rim of the man-way, whose edge must only be one line in width, and may be rather sharp. From the edge the surface of the rim falls away at an angle of 45°, thus forming an obtuse edge, which cuts into the lead. This easily-made caulking always fits closely and securely, if the lid is always placed as it lay at first. With these lids the screws need not be so tightly drawn as with the hemp braids; the seam itself already presses down the lid. And, secondly, before every opening through which a great escape of steam can suddenly be effected, there should be a cast-iron plate loosely placed so close that with the ordinary issue it remains in its place, but with a greater escape of steam be raised, and so narrows the escape opening that too much steam cannot issue. This plate may have short feet, or else small rims may be made on the under side of the boiler, to prevent the entire closing of the opening, so that only so much steam as the boiler generates, or as is necessary for the working of the machine, may issue. If at any time there has, through some circumstance, more steam been consumed, and the plate been thrown before the opening, it can immediately be removed by turning off the steam a moment, that the pressure in the conducting pipe may decrease; the machinery will not even be disturbed in its action by this. In bleacheries, dye works, &c., the habit often prevails suddenly to open the steam-cocks; but by using the above-described plate the habit of slowly opening the cock will be acquired, as it is necessary to safety, because otherwise the steam is hindered, and the cock must again be closed in order to let the raised plate fall.

DIRECT RAILWAY COMMUNICATION BETWEEN ENGLAND AND FRANCE.

The project for establishing uninterrupted railway communication between the various towns of Great Britain and the Continent appears to be now assuming a somewhat more tangible form, the ANGLO-FRENCH RAILWAY BRIDGE (preliminary) COMPANY having been formed, with a capital of 8000*l.*, for the purpose of constructing large models to scale, for the purpose of proving the practicability of the system invented by Mr. C. Boutet (whose project, it will be remembered, was recently examined with much care by His Majesty the Emperor Napoleon, and received with much favour), for the construction of a large International Bridge, uniting England and France, across the Straits of Dover; of serving as types for bridges and viaducts of various sizes, which can be constructed by this system, and at half the usual expense of time and money, without piers from one river bank to the other, and of demonstrating the application of the same principle to the construction of portable bridges, which will render great service to armies. The shares have been fixed at 100 frs., or 4*l.* each, and the French half of the capital has already been raised. The shareholders in this preliminary company are to receive ten times the amount of their subscription in cash or paid-up shares, at their option, in the company to be formed for the Channel Bridge. The model is already commenced, and can be finished in two months.

It is proposed to construct the bridge from the Shakespere Cliff, near Dover, to Cap Blanc Nez, a short distance from Calais, this route, although somewhat longer than the Gris Nez route, presenting certain important advantages, the soundings of which show a perfectly regular and gradual descent from each shore, and a maximum depth of 157 ft. 6 in. The total length of the bridge is to be 32,822 yards, divided into ten arches of uniform span, resting on nine piers, rising to a height of 360 ft. above the sea, so as to allow of the free passage of ships of the largest class. The arches are constructed on a new system, by which absolute rigidity is secured by the use of wire cables and wrought-iron—an ingenious and very simple system of scaffolding rendering the placing of the parts extremely easy. Metallic framework piers, with foundations about 400 ft. long by 250 ft. wide, and tapering to about 200 ft. square at the top, are to be employed, the centre pile being half as large again as the others. The piers are to be screwed down by 70 or 80 powerful screws, and are so arranged that they can be constructed on land, floated into position and fixed at once, the floating and fixing being calculated to occupy not more than half a day.

The Emperor's observation, that this system "is certainly far preferable to all the other schemes which have yet been proposed," is one in which all will concur; for, assuming a communication for avoiding the sea passage is to be established at all, it will be obvious that a bridge would be quite as practicable as a tunnel, whilst the bridge would have the undoubted advantage that it could be more speedily constructed. In the construction of a tunnel, it would be practically impossible, even supposing the construction of a shaft at the Varne bank, to keep more than about 100 men at work driving; four ends being, of course, the maximum number that could be kept going, so that with eight men in a pare, and three shifts a day, 96 men only could be employed. With a bridge, on the other hand, the circumstance of the putting together being the only part of the work to be necessarily performed *in situ*, there would be no difficulty in employing all the labour available in the construction of the parts on shore, and then (the piers having been fixed) the works could be carried on along the entire length of the bridge simultaneously. The undertaking, should it be determined to carry it out, could scarcely fail to prove of immense importance to the industrial interests of both England and France, as an enormous quantity of iron of costly descriptions would be required, and employment would be found for a very large number of workmen.

STEAM SUPERSEDED—MOTIVE POWER FROM THE SUN.—After the expenditure of an ordinary lifetime upon the perfecting of his caloric machine or hot-air engine, Mr. ERICSSON has come to the conclusion that even still further economy may be effected in the production of motive power, by the utilisation of the rays of the sun, for the condensation of which he has now invented a novel apparatus. He writes—

"Calculations which I have just completed have satisfied me that if the sun's rays, now wasting their strength on the house roofs of Philadelphia, were condensed they might be used to set 5000 steam-engines, of 20-horse power each, in motion. That the new force can be obtained without occupying ground put to other useful purposes is one of its remarkable peculiarities. To give an instance, let us suppose a Swedish square mile (equal to 49 English) covered with condensing apparatus and sun machines. Let one-half the surface be occupied by buildings, roads, &c., and we have still 648,000,000 square feet free for our purpose (2 feet Swedish equal to 0·593 metre). Now, as my condensing apparatus has demonstrated 100 square feet to be amply sufficient for the production of 1-horse power, it follows that 64,800 steam-engines, of 100-horse power each, can be worked with the rays thrown on a Swedish square mile. Archimedes having calculated the force of the lever, explained that he could move the earth from its position. I assert that by condensing the rays of the sun a force could be created that might arrest the earth in its course. We have scarcely begun to work the coal fields of Europe, and already computations are being made in England when they will be exhausted. In a thousand years or so—a drop in the ocean of time—there will be no coal left in Europe, unless the sun be put in requisition. True, the rays of the sun are often prevented from reaching us, but, with such a large magazine whence fuel may be obtained without labour or transport to draw upon, experienced engineers will have no difficulty in laying up a store against the rainy day. A large portion of the earth's surface is, moreover, illuminated by an ever unclouded sun. The area over which the sun machine can work may, therefore, be regarded as equally unlimited as the amount of force that can be generated."

ROYAL POLYTECHNIC INSTITUTION.—The recent disastrous earthquake in Peru has naturally caused very general interest to be felt in cosmical phenomena; and, with his usual anxiety to meet the public taste, Prof. Pepper has, therefore, arranged a new programme of lectures at this useful and deservedly popular institution. The Professor's lecture on "The last New Solar Eclipse, as seen in India," is one of the most attractive which he has given for some time. In the popularising of abstruse scientific subjects Prof. Pepper has ever displayed especial ability; and in the present instance, the subject being one of more than ordinary general interest, his success in making the scientific facts connected with eclipses and allied subjects thoroughly intelligible to his audience has been complete. Equally worthy of commendation is the excellent lecture by Mr. J. L. King, on "The Grand Phenomena of Nature, including Earthquakes and Volcanes," which is admirably conceived and well delivered. Of the excellence of the illustrations by which both lectures are accompanied it is unnecessary to speak, the Polytechnic Institution having ever stood alone in that respect; whilst apart from the scientific portion of the entertainment there are pictorial and musical attractions which will well repay a visit.

THE WELSH SLATE TRADE.

The difficulty experienced by consumers in obtaining the execution within a reasonable time of their orders for slates has long been a subject of remark, yet it is acknowledged that at many quarries certain descriptions of slate remain for months unsold (owing to the desire to execute some particular order) which could be readily brought into the market and sold at a profit. This arises from the impossibility of producing without waste slate except by making whatever size the blocks will cut into, loss at all times attending the use of blocks of larger size than that absolutely necesary for the making of the slate required. As the sizes, therefore, of slate manufactured at every quarry entirely depend upon the nature of the blocks quarried, and as it is impossible to control the size of the blocks, so is it equally impossible to manufacture slates to the size immediately required by the consumers: this obliges quarry owners to hold their make of slates for months, while they accumulate a sufficient quantity of each size and quality (about 60 classes) to execute their orders; and, as the blocks when quarried must be at once riven into the slate they are fit for, or would otherwise not rive at all, this is often a work of from six to twelve months, during which time they have to pay their wages and many other expenses in cash.

To effect a sale monthly many of the quarry owners have expressed their willingness to sell to the Bangor Slate Supply Company (as middle man or factor) all their monthly make at a very large discount off the tariff prices, as the monthly realisation of their entire stock will enable them to extend their quarries and produce a larger supply, which would be of enormous advantage to themselves, and a great boon to the public, the demand for slate being so greatly in excess of the quantity the quarry stones can produce, and which has been the cause of raising the prices of slates steadily for the last ten years, during which period they have advanced 30 per cent.

The object of the company will be to bring the entire make of all the quarry owners doing business with them into their one depôt at Bangor, and there to sort them ready for delivery to the consumers. Supposing, therefore, only 12 quarries were delivering, the accumulation of slates of any particular size would, it may be assumed, be 12 times as rapid at the depôt as at any individual quarry, so that orders which given to a single quarry could not be executed in less than a year could be executed by the company in a month. From these facts it is not unreasonably calculated that the monthly profits of the company would be very large. As the London and North-Western Railway Company will lay their rails from their station to the company's depôt free of expense, and as none of the subscribed capital is to be expended except for goods supplied to more than the value, there is not a probability of risk.

It is estimated that the profits realised by the company will be from 15 to 20 per cent. upon the amount employed every month in purchasing and re-selling slates, and that the business will very soon grow to such an extent as to employ the whole capital. There are about 40 distinct quarries from whom the company could buy slates; but take only half of them to begin with, that half would each give on an average 250 tons of slate per month. The average price from the published tariff is about 45*s.* per ton. The company's depôt at the railway station, Bangor, is exactly in the centre of the two largest slate quarries in the world, and also of the numerous other slate quarries which constitute Bangor the slate market of the kingdom, and ever must, it is thought, keep it so. Customers and stock are there face to face; there is perfect railway communication with every district in the kingdom, and orders for slate can be executed *immediately*, while any *individual quarry* would require many months to accumulate them. It appears, from the experience of the manager of the largest quarry in the world (near Bangor), that the promptitude with which payments are made in the slate trade is remarkable—in their enormous transactions (turning over nearly 500,000*l.* a year) they have not during the past three years lost a singly penny by bad debts, and that in the same concern during the last 30 years a fraction of one penny in the pound has covered all the bad debts made.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

THE STANNARIES COURT.—I am glad to see that there is a disposition on the part of the electors to ask the various candidates at the forthcoming election if they would support an enquiry into the present state of the Stannary Law, with a view to secure such modifications as shall render proceedings in the Stannary Court more speedy and less expensive. It is thought that by giving the mining interest the advantage of a cheap and rapid legal process the Stannaries Court would become even more important than at present in facilitating the development of the mineral resources of the Western Counties.

Most encouraging reports continue to come up from the lead mines of Cardiganshire. The agents write that the shaft in CWM DARREN is going down in a very good lode of silver-lead ore. At GREAT CWMSYMLOG there is a rich branch of ore in Oliver's adit. In the west junction the shaft is in a cap of a great course of ore. At BRYNYSTWITH the eastern rise is in a lode principally of rich, solid ore, the branches of spar and ore being 18 in. wide. Messrs. Taylor and Co. are raising 10,000*l.* for working WILLOW PARK and LLETTY EVAN HEN. The LISBURNE MINES, BRYNYSTWITH, GOGINAN, BWLCH CONSOLS, EAST DARREN, BRONFLOYD, CWM DARREN, GREAT CWMSYMLOG, PWLL-ROMAN, LLAWRCUMBACH, EAGLEBROOK, and in fact all the working mines of the country, from Llanidloes to Aberystwith, east and west, and from Eaglebrook to the LISBURNE MINES, north and south, a piece of ground equal to 240 square miles, is one field of mining prosperity; all the mines, either dividend-paying, able to make profits, or discoveries being made every week. I have never witnessed such general success in any mining country as in the lead districts of Cardiganshire, and ground adjoining.

PRINCESS OF WALES.—The works on this mine are being prosecuted with great energy, and a very short time will complete the erection of the engine. Some of the lodes will soon be met with in the engine-shaft, when a course of ore may be expected: 4*s.* per share has been called, leaving a balance in hand, and it is expected 7*s.* per share will pay all costs to the 50 fm. level, at which point the Prince of Wales shares advanced to 50*s.* per share; and, judging from the ore-producing lode in the Princess of Wales, at a depth of only 12 fms., this mine may fairly be expected to be as rich, or even richer, than its neighbours. Mr. John Hitchins has been requested to inspect this property, and will publish his report in next week's Journal.

SOUTH PRINCE OF WALES will become a splendid property. It is already turning out well, and making profits. From the silver lode some splendid stones have been broken, and reports say that some of the ore from this lode is worth from 500*l.* to 700*l.* per ton. From the sulphur and copper lodes they are raising 100 tons per month, at a tribute of 13*s.* 4*d.* in 1*l.* An engine is to be put in for pumping and hauling. On the completion of this, no doubt larger profits and dividends will be made.

LOVELL CONSOLS.—This mine is steadily improving, and the agents report the 12 end west is letting out more water, and the lode composed of peach, prian, and tin. This will soon be in under the rich course of ore discovered in the level above, worth 30*l.* per fathom, and another fortnight will no doubt prove that the valuable discovery will hold down.

GOLD AMALGAMATION—QUICKSILVER SUPERSEDED BY MELTED ZINC.—Mr. R. D'Heureuse, in a communication to the San Francisco *Mining and Scientific Press*, remarks that only one-half or thereabout of the gold is extracted by quicksilver from the ore; the rest is either carried away as float gold by the water required for the batteries, or remains in the tailings. This fact, known to every intelligent operator, should alone be sufficient to point out the imperative necessity of devising other extracting agents for that great majority of ore containing more than $20 to $25 per ton, but not rich enough to leave a profit by direct chlorination. Concentration of the sulphurets, for chlorination, involves at best a great loss in float gold. Many localities with rich quartz veins have insufficient water for batteries within convenient distance, and for the greater part of the year the ore has to be hauled long distances, with heavy expenditure, to a mill site with water, or the mine must be abandoned and lie idle. The case, therefore, stands thus—What is required is an extracting agent that does the work complete, cheaper than chloride, and requiring no water to reduce the ore, except such as is needed for the engine. Zinc, of all substances in existence—chloride not excepted—has the greatest affinity to gold. Its action, in a melted state, on gold is to instantaneously dissolve the same in any proportion. Its specific gravity, about 7, is sufficiently high to float all *debris*, not excepting sulphurets of iron, the constant companion of gold. It melts at a comparatively low temperature, and requires but little heat to retain its melted state. It is sufficiently volatile to permit of retorting, as in the use of quicksilver, but by a covered surface and a temperature below a dark red heat, the loss by volatilisation and burning is hardly appreciable, while the metal is obtained at a low price, and in any quantity required. Thus we have in zinc a material manageable, and fulfilling the conditions required of a gold extracting agent in a high degree, higher than any other known. Mr. D'Heureuse's mode of applying it consists simply in gradually introducing the gold-bearing pulverised substance below the surface into a bath of melted zinc, which will immediately attack and dissolve nearly or every particle of gold, while the *debris* rises to the surface to be taken off. The mechanism is very simple and durable. Should sulphurets, in which particles of gold are so firmly embedded as not to offer any contact even on the smallest point, prevent the extraction to such a degree that it will pay to work it over by concentration, roasting and chlorination, it may be done. But all the gold, in another manner lost as float gold, and much more, is certainly already saved by the zinc. Dry crushers to be used in preference.

WATSON BROTHERS' MINING CIRCULAR

WATSON BROTHERS,

M NING AGENTS, STOCK AND SHARE DEALERS, &c.

1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both.

Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON BROTHERS they are emboldened to offer, thus publicly, their best services to all connected with mine or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to *recommend* mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

SATURDAY.—Market very active. Drake Walls shares advanced to 14s., buyers. East Grenville, 3⅝ to 3⅞; Grenville, 31s. to 33s.; Don Pedro, 3⅜ to 3⅝; West Chiverton, 61 to 62; East Caradon, 4¼ to 4½. Great Wheal Vor in active demand, at 12 to 13. Prince of Wales, 38s. to 40s.; West Frances, 29 to 31; Wheal Chiverton, 5½ to 6; Great Retallack, 2⅞ to 3⅛; West Drake Walls, 7s. to 9s.; Chontales Gold, 2⅜ to 2⅝; Frank Mills, 2½ to 3; Tincroft, 13¼ to 14½.

MONDAY.—Market very active. Chiverton shares advanced to 6½, buyers. Prince of Wales, 39s., buyers. Chontales flatter. Drake Walls, 16s. to 18s.; East Grenville, 4¼ to 4½; Grenville, 30s. to 35s.; West Chiverton, 61 to 62; Great Retallack, 2⅞ to 3⅛; Yudanamutana, 2 to 2¼; West Frances, 30 to 32½.

TUESDAY.—Market continues active, with good demand for Drake Walls, Tincroft, Chiverton Moor, and Great Wheal Vor shares, at an advance. Chiverton shares receded to 5½, sellers; Drake Walls, 17s. 6d. to 20s.; Tincroft, 14 to 15; Chiverton Moor, 6⅛ to 6⅜; Great Wheal Vor, 12 to 13; Prince of Wales, 38s. to 40s.; West Prince of Wales, 8s. to 10s.; East Caradon, 4½ to 4¾; West Chiverton, 61 to 62; Great Laxey, 17¾ to 18¼; Great Retallack, 2⅞ to 3⅛; Chontales, 2⅜ to 2⅝; Don Pedro, 3⅜ to 3⅝; Yudanamutana, 2 to 2⅛.

WEDNESDAY.—Market again active. Chiverton shares advanced to 5½, buyers; Great Laxey, Great Wheal Vor, Frank Mills, Prince of Wales, Tincroft, Chontales, and Chiverton Moor shares in demand. Chiverton, 5¼ to 6; Great Laxey, 18 to 19; Great Wheal Vor, 12½ to 13⅛; Frank Mills, 3 to 3⅛; Prince of Wales, 39s. to 41s.; Tincroft, 14½ to 15; Chontales, 2½ to 2¾; Chiverton Moor, 6⅜ to 6⅝; East Grenville, 3⅞ to 4⅛; Great Retallack, 2⅞ to 3⅛; Grenville, 30s. to 32s. 6d.; West Chiverton, 61 to 62; West Seton, 157½ to 162½.

THURSDAY.—Market rather quiet. Chiverton, 4¾ to 5; Providence Mines, 25 to 26; Wheal Kitty (St. Agnes), 3¾ to 4; Don Pedro, 3¼ to 3¾, chiefly dealt in; Prince of Wales, 38s. to 40s.; West Chiverton, 60½ to 61½; East Grenville, 3⅞ to 4⅛.

FRIDAY.—Market rather quiet. East Grenville shares advanced to 4⅛; Chiverton, to 4⅞, and leave off flatter, at 4¼ to 4½; Prince of Wales, 37s. 6d. to 40s.; Tincroft, 14½ to 15⅛; Chontales, 2½ to 2¾; Drake Walls, 16s. 6d. to 18s. 6d.

Mining Correspondence.

BRITISH MINES.

ABRAHAM CONSOLS.—J. Vivian, Oct. 22: The lode in the 27, driving east of No. 2 shaft, is worth 4*l.* per fathom for tin. The lode in the same level, west of shaft, has not been taken down for the week; when last taken down it was worth 10*l.* per fathom for tin.

BEDFORD CONSOLS.—J. Mitchell, Oct. 21: The new south lode, in the middle adit level, east of cross-cut, is full 6 ft. wide, composed of capel, spar, mundic, flookan, prian, and occasional good stones of copper ore. The north, or leading part, is principally mundic and capel, spotted with ore. We shall continue the drivage on the south part of the lode, for some short distance, before cutting it through again. This part of the lode contains a small branch of mundic and black ore, which is at present yielding a little saving work. We have put in some timber, and secured the ground in the level west of cross-cut, and the men are now engaged putting up a rise in the back of this level, where we have a little ore, in order to prove the lode.

BRYNYSTWITH.—J. F. Tregoning, Oct. 19: The rise in the eastern end is looking well; the lode is about 18 in. wide, with branches of ore from 2 to 3 in. wide, as solid as cheese. The western end, driving north, is much altered. We have got into the lode; we have driven through it about 2 feet. We have not found the main wall yet, but expect every day to cut into a good lode of ore, there being already a little there. No alteration in the north cross-cut since last report.

CAPE CORNWALL.—R. Pryor, F. Hosking, Oct. 20: The ground in the 110 cross-cut, driving north of engine-shaft, shows great indication of nearing a lode or branch. The ground in the 70 cross-cut, driving south of engine-shaft, is a little more favourable, and mixed with mundic and spots of copper ore. All other places are without change to notice.

CARADON CONSOLS.—S. Bennetts, Oct. 20: There is as yet nothing further seen in the 78 north in the shape of a lode. There seems to be a split in the cross-course, which may partially account for the ground being somewhat harder about this point than usual. In the 78 west the north perpendicular lode or branch is again met with in the end approaching the Clymo's lode; it is from 6 in. to 9 in. wide, carrying a good wall, and containing some good stones of ore; between these lodes (3 ft.) the ground is full of small veins of lode stuff, containing spots of ore, altogether a very promising looking end.

CHIVERTON.—J. Juleff, J. Borlase, Oct. 22: The 20 north, at the Trial shaft, is worth 1½ ton of lead per fathom; and the 20, south of No. 2 cross-cut, is worth 3 tons of lead per fathom. The 20, south of No. 1 cross-cut, is producing good stones of lead, with a very promising appearance. No alteration in the 78, east of the old engine-shaft, or the 78 north, on the caunter.

CHIVERTON MOOR.—James Juleff, W. Bennetts, Oct. 22: The 85 fm. level cross-cut is extended 11½ fms. towards the lode. Clogg's shaftmen are making good progress, now down 23½ fathoms. The 75 west has improved to 10 cwts. of lead per fathom. The winze sinking below the 65 west is worth 5 cwts of lead per fathom; also two stopes in the back of the 65 fm. level, west of the engine-shaft cross-cut, are worth 10 cwts. of lead per fathom each. On the whole, the mine has improved.

COOK'S KITCHEN.—J. Thomas, C. Thomas, F. Gilbert, Oct. 14: The 282 is driven 6 fms. east of engine-shaft, on the south part of the lode, which is producing a little tin. We intend shortly to cut north into the north part of the lode, which we think will be found to be of greater value. The 282 is also driven 9 ft. west of shaft, where the lode is worth 20*l.* per fm. The 270, west of engine-shaft, is worth 10*l.* per fm. The lode in the 270, east of engine-shaft, is worth 20*l.* per fm. We have commenced to sink a winze below this level, about 20 fms. east of the 282, where the lode is worth for 9 ft. long, 60*l.* per fm. The 258, east of engine-shaft, is worth 20*l.* per fm. About 6 fms. behind this end, and 12 fms. before the 270, a winze which we have just begun to sink is worth, for 9 ft. long, 30*l.* per fm. The 246, east of engine-shaft, is worth 25*l.* per fm. The winze under the 234 is holed to this level since the last account, and the ground set to stope. The 234, east of east shaft, is worth 35*l.* per fm.; this end is about 6 fms. short of the boundary winze, under the 222, which is sunk 8 fms., where the lode is worth, for 9 ft. long, 100*l.* per fm. The 222, west of cross-cut, on Dunkin's lode, is producing good stones of tin, but is not of much value. We intend on Saturday next to set a cross-cut to drive south at the 246 to intersect Dunkin's lode at that level.

CUDDRA.—Francis Puckey, Oct. 21: All our underground operations are being urged on with all possible speed. The lode in the different stopes is without alteration in value since last reported on.

DRAKE WALLS.—T. Gregory, Oct. 22: The branches in the 60 south are worth from 18*l.* to 20*l.* per fathom, with a very promising appearance. We shall commence to drive a cross-cut at the 70 next week towards the south tin branches. In the 50, east of Brenton's, the branches have improved, and we may expect a further improvement when next taken down in course of a few days. No. 2 winze, in the 50, west of Brenton's, is worth 14*l.* per fathom, and opening a productive piece of stope ground.

EAST CHIVERTON.—John Grose, R. Southey, Oct. 20: The following is our report of the present operations and future prospects of this mine:—Since the last general meeting, on July 11, we have sunk Bartlett's flat-rod shaft 5 fms.; the same is now down 9 fms. below the 25, and is sinking by nine men, at 24*l.* per fathom. We have also sunk boundary shaft 13 fms., and communicated with the 25; this was a very important point for ventilating the mine, and now the men have good air to work we shall make much better progress in sinking the engine-shaft. We have also resumed driving the main cross-cut north by four men, at 11. 10s. per fathom. This end is in a beautiful channel of ground for the production of silver-lead ore, quite similar to that around the new lode at Wheal Chiverton, where they have such a splendid improvement as is very rarely met with. This discovery is about 200 fms. to the west of our boundary, and we are more than ever persuaded that when we reach a lode in this cross-cut it will be a productive one. The end west, on No. 1, has been extended 10 fms. through a productive lode, and for a great part of this distance it has carried a regular leader of silver-lead ore, especially good in the bottom of the level. This is a very promising lode, and has been yielding lead ore for the last 24 fms. similar to what can now be seen at surface, and we believe we are passing over a good deposit of ore. In conclusion, we beg to add that while these operations are being carried on every exertion is being used to facilitate the work and keep the costs as low as possible. The engine and pitwork continue to work satisfactorily. We consider that the present and future prospects of the mine were never so good as now.

EAST PROVIDENCE.—John Nancarrow, Oct. 22: We have just got into the lode in the 59, on the east side of the cross-course, where it looks very promising for tin. The 70 east looks better; there is a large tinny lode opening out in the end. The lode recently driven through in the 94 east is worth 5*l.* per fathom, and is better in the bottom of the level; this looks well for the 106, where the end is within 5 fathoms of this lode. No alteration in the 106 fathom level end, nor Boorman's shaft. The pitches continue to yield the usual quantity of tin.

EAST ROSEWARNE.—C. Glassan, Oct. 22: In King's shaft, sinking below the 115, the lode is 12 inches wide, worth 5*l.* per fathom. In the 115, west of shaft, there is no lode taken down since my last report. In the 115, east of shaft, the lode is not looking so good as it has been, now 12 inches wide, worth 4*l.* per fathom. In the rise in back of the 105, west of shaft, the lode is 12 inches wide, producing stones of copper ore, but not enough to value. In the rise in back of the 105, east of shaft, the lode is 12 inches wide, worth 6*l.* per fathom. In the 95, west of shaft, on the south part of the lode, it is 6 inches wide, producing good stones of copper ore. In the 95, east of shaft, the lode is 12 inches wide, worth 3*l.* per fathom.

EAST SNAEFELL.—W. H. Rowe, Oct. 21: The slide in the 20 fm. level is likely to be of considerable width; we have already cut into it 10 ft., and there is no hanging wall as yet; I hope to know something about it shortly. Nothing worthy of remark in the shaft this week, and we are not yet in full working order in the 15 stopes.

EAST WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, Oct. 17: In the 120 the men are making very good progress—looking at the ground towards the caunter. The lode in the 110 east is 16 in. to 18 in. wide, worth 2 tons of copper ore per fathom. In the rise above the 95, on the cross-course, we have cut through the lode, where we have a branch of ore 9 in. wide, which will produce 1½ ton per fathom. In the winze sinking below the 75 there is no change from yesterday; we shall expect to hole this winze in the course of next week, after which you can open a level between the 75 and 95, as it will lay open good tribute ground. In the 65 we find the lode is carrying a flookan, with black ore, mundic, and yellow ore. The branches in the 55 east are coming together, and we find some greens of copper; judging from the appearance of these branches we look with some little degree of confidence to a good improvement.

— G. R. Odgers, W. Bennetts, October 21: We beg to inform you that the lode in the 110 east is from 20 in. to 2 ft. wide, and will produce 2 tons of good ore to the fathom; this is the most eastern end we have on this lode; it is looking very promising, hence the prospects here are good. The lode in the winze sinking below the 75 east is not so large as it was—from 1 ft. to 15 in. wide, and worth 4 tons to the fathom; this we hope will be holed by Saturday, after which we shall be enabled to drive three levels—the 95, an intermediate level between that and the 75, with the 75 fm. level end. At the 65 we have also intersected the lode on the west side of the cross-course, which is 20 in. wide, and producing good yellow ore; we shall now open both ways. We have to-day sampled (computed) 103 tons of copper ore.

— G. R. Odgers, W. Bennetts, Oct. 22: The lode in the 110 east is 2 feet wide, worth 2 tons of good ore to the fathom; this is as pure a looking lode as anyone can see; in fact, it is the best looking lode we have ever seen to the east of the shaft. The lode in the winze sinking below the 75 is worth 4 tons of copper ore per fathom. We expect to hole this winze to-night, or at any rate before Saturday, when the 75 and the 95 fathom level ends will be at once resumed. The lode in the 65 east is 20 in. wide, composed of quartz and peach, with yellow ore and mundic—a strong lode, but it is not yet sufficiently advanced from the cross-course to form a decided opinion. In the 55 we are glad to tell you that the branches are uniting. In the present end we have met with a vugh, and from the furthermost point we can take out red oxide of copper. We should like to see 4 fms. more driven, as the indications really bespeak a bunch of ore.

EAST WHEAL REETH.—Thomas Uren, Oct. 22: We are getting on very well with the adit, and have let down some more water. The adit is being driven on the north and south lode, and it appears as if the old men had a great deal of tin there. In driving 8 or 10 fms. on the north and south lode we shall cut Wheal Reeth great north lode, a lode that has produced a great quantity of tin in Wheal Reeth.

EAST WHEAL REETH.—James Pope, Oct. 21: This mine is situated in one of the best tin-bearing districts in Cornwall, adjoins Wheal Reeth on the west, and on the same run of lodes, Balnoon on the north, Providence on the east, and Wheal Kitty and Wheal Mary on the south, quite in the centre of some of the richest tin mines in this district. This piece of ground is quite unexplored—only an adit driven about 60 fathoms on St. Ives Consols cross-course, about which the best deposits of tin have been found. An engine-shaft has been sunk on this cross-course 50 fathoms below the adit, but no level has been driven, and all the pumps are now standing in the shaft, which will be a great saving to the present party. This sett is very extensive, being about ½ mile in length and ¾ mile in width, and is traversed by several lodes of great promise, which have produced large quantities of tin at a shallow level to the old workers, and is worked as deep as water allowed them, but nothing done as deep as the adit level on any of the lodes, the cross-course excepted. In driving the above adit referred to about 10 fathoms Wheal Reeth north lode will be intersected, which was very productive in that mine, and in a short distance several other lodes will be cut, which, from what can be seen in the backs and old men's workings, cannot fail to open up a good and lasting mine. To explore this mine only a small outlay will be required as compared with mining, as no pumping machinery will be required for some little time, until some ground is laid open on the different lodes in the adit level, and I have no doubt large quantities of tin sent to market. This mining property I can recommend as a first-class speculation, and I consider it to be one of the best pieces of tin mining property in Cornwall.

EBURY.—W. Kitto, Oct. 22: The shaft sinking below the 50 is in a horse of rock, and is, consequently, hard and poor. In the 50 end east we have a change, and think we are now close to the swallow. We have been anxiously looking for this that we might drive west in the ore ground, from whence we have recently taken out some very large lumps of ore; in fact, in a few days we shall have probably 5 or 6 tons of lead ready for market, which if you wish we might sell at the next monthly ticketing.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., Oct. 17: The ground in King's engine-shaft, sinking below the 70, is without change, and our progress as fast as the nature of the work will admit. The lode in the 70 east is 5 ft. wide, yielding 6 tons of ore per fathom. The lode in the stope in back of the 70 east is worth 5 tons of ore per fathom. The lode in the winze sinking below the 70 is partly cut into on the north side, showing a very kindly appearance, with fine stones of ore. The lode in the 60 east is improving in character, yielding 1 ton of ore per fathom. The lode in the winze, sinking below the 60, is improving, worth 5 tons of ore per fathom. All other points of operation without change.

GLASGOW CARADON.—W. Taylor, Oct. 20: Caunter Lode: The 78 west is worth 6*l.* per fm.; lode rather disordered by a small cross-course. The stopes on this lode vary in value from 6*l.* to 10*l.* per fm. There is no change in the cross-cut south at this level.—Arrol's Lode: The 65 east is worth 6*l.* per fm. The stopes on this lode vary in value from 8*l.* to 14*l.* per fm.; we are expecting almost daily to cut Harvey's lode in the cross-cut from this lode at the 52, which will open up good ore ground.—Harvey's Lode: The 65 east is worth 8*l.* per fm. The 65 west is worth 5*l.* per fm., and likely to improve. The stopes on this lode are looking very well, worth from 6*l.* to 18*l.* per fm. We are getting on very well with our dressing for next sampling, and shall have more ore than the last, and I hope of better quality.

GREAT NORTH DOWNS.—W. Rich, Oct. 21: We have a portion of the castings in place for the 19-in. lift at Sleggan's shaft, and have sent down one piece of main rod and connections; the men are busily engaged about this work. The 84 end, east of Sleggan's, is worth 10*l.* per fathom. The west end yields stones of ore. The new winze in the 74, east of Sleggan's, is worth 10*l.* per fm. The winze west is worth 20*l.* per fathom. The 84, west of King's, carries stones of ore; the ground is rather stiff at present. Two stopes in this level are worth 18*l.* per fathom. The stopes in the 74, west of Sleggan's, are worth 12*l.*, 10*l.*, and 6*l.* per fathom. The lode in Butler's shaft, sinking below the 75, is large and promising, and carries good stones of copper ore. The 75 east is worth 10*l.* per fathom. Butler's north lode, below the 54, has not been taken down since last report. There is nothing new in the cross-cut south. If we do not shortly intersect a lode here we shall open out on the branch passed through a few fathoms behind the end, to prove it away from the influence of the cross-course.

GREAT RETALLACK.—G. R. Odgers, J. Harris, Oct. 21: No. 1 Lode: The lode in the 30 south is 3 ft. wide, and worth 6 cwts. of lead to the fathom. The lode in the 30 north is also producing good lead, and of which we have a good opinion. No change in the 20 south. The lode in the winze sinking below this level is yielding stones of lead, but not to value. The stopes above this level are worth 4 cwts. to the fathom. The lode in the 20 north is 1 foot wide, with a leader of lead.—No. 2 Lode: The shaft is now in the 40 fm. level; they have commenced stripping down the lode, which is 18 in. wide, with fine lead in the flookan part. We like the appearance of this lode much better, and we hope shortly to have the pleasure of announcing an improvement here. The lode in the 30 north is split in two branches, with a little lead; the ground has considerably improved, and we believe we shall yet find a bunch of lead in this end. The lode in the winze sinking below the 20 is a little better again, and will produce 6 to 8 cwts. to the fathom. We are pushing on the dressing.

GREAT SOUTH TOLGUS.—John Daw, Oct. 21: There is no alteration in any point since the report of last week. I will send on full report for the meeting on Monday next.

GREAT WHEAL BADDERN.—R. Pryor, H. Tregoning, Oct. 17: The tin lode in the 75, west of the cross-cut, is very much improved, and is now producing some good tinstuff; in fact, we have broken rich stones of tin out of the end to-day, which is 5 ft. wide, the character of which is all that can be asked for, and we are induced to think that a good course of tin will be shortly met with at this point. We have set the end to drive again to-day to six men, at 16*l.* per fathom. The lode in the 75, west of the cross-cut on the Baddern lead lode, is 3 ft. wide, producing mundic, blende, spar, and spots of lead, the character of which is good. The end has been set again to-day to six men, at 7*l.* per fathom. We think we shall soon have to report a good improvement on these two points.

GWYDYR PARK.—Wm. Smyth, Oct. 20: In the shaft at Gwyn Llifion the lode is rather small, and principally composed of spar, blende, and spots of lead ore. The present depth of the shaft under the 8 fm. level is 6 fms. 2 ft. 4 in. I have been in the deep adit, and can hear the men working quite plain; they can also hear me in the shaft. In Firchester's adit the lode is a little more promising, showing nice spots of lead ore, and the ground favourable for driving. I had a few holes put in the back of the level, about 15 fathoms from the end, where the lode is about 2 feet wide, composed of spar, mundic, blende, and good stones of lead ore, but not enough to pay for working. We have about 2 tons of lead ore on surface at Gwydyr and Gwyn Llifion.

HINGSTON DOWN CONSOLS.—T. Richards, Oct. 21: Bailey's engine-shaft, sinking below the 140, contains more capel and quartz, and does not at present produce enough ore to value. In the 85, east of Morris's engine-shaft, the lode is large, composed of capel, quartz, and mundic, with some rich copper ore intermixed. The rise in back of the 85 is without change. In the deep adit level there is a change in the character of the ground, the hard capel and killas having given place to favourable granite.

IMPERIAL.—E. Pearse, Oct. 22: In the adit cross-cut south we have intersected a lode, and cut into it nearly 2 ft., but are not yet through it; it is producing a little lead ore, but not of any value, and water is issuing from the forebreast. No change in the other bargains since last reported on.

LOVELL CONSOLS.—W. Chappell, Oct. 22: In the 12, driving west, the lode is 15 in. wide, composed of rich prian and tin, very much improved for the last 6 ft. driven, and letting down the water just cut at the bottom, west of the bottom end; the water is drained down for 12 ft., leaving only about 7 ft. more to drain the bottom dry, when we shall be able to sink on it from the bottom of the adit, which will ventilate the mine, as well as lay open a good run of tin ground. The dip of tin is westward, the same as that of East Lovell. Our engine and pitwork are in good order.

MAUDLIN.—J. Tregay, Oct. 17: In deep adit east we have not yet met with the lode east of the cross-course; west of cross-course it is producing very good work for copper.

MINERA UNION.—Wm. T. Harris, Oct. 22: Low's Shaft: The lode in the 60 yard level north is 4 ft. wide, containing lead and blende, but not in sufficient quantities to value—a very promising lode, and likely to improve as driven forward. The cross-cut at the 40 yard level makes satisfactory progress; the ground consists of chert and carbonate of lime.—Brabner's Shaft: The ground in the cross-cut at the 80 yard level is the same as last reported; a little more water issues from the end. The pitch in the back of this level south is worth 1¼ ton of lead per fathom. The pitch north is worth 10 cwts. of lead per fm. There is no other alteration to report underground. Our dressing makes good progress; to-day we sampled 30 tons, for sale on the 28th inst.

NEW CROW HILL.—T. Trelease, A. Kent, Oct. 20: At the sump-winze our progress in sinking has been greatly impeded by cutting a fresh stream of water, which has greatly hindered us, and also compelled us to put in extra timber to secure the winze, and consequently we cannot report any change in the bottom of the winze. We are using every effort to push our operations at this place, but under present circumstances cannot expect to make the progress that we have for some months past. Our pitches at the 55 and 35 fm. levels are producing fair stamps work, and looking much the same as reported last week.—Wheal Louisa: At the engine-shaft the ground is a little harder than it has been for some time, but everything is in good working order. At the winze sinking under the 60 the lode is about 3 ft. wide, composed of mundic, peach, blende, spar, &c., but at present unproductive for lead; here we are making good progress in sinking. At the 60 fm. level end east the lode has been intersected by a cross branch, which disordered it a little, but it is at present forming itself regular again, though without visible improvement.

NEW GREAT CONSOLS.—R. Pryor, R. Trathen, T. Bennetts, Oct. 19: All being well we shall finish cutting down the engine-shaft in the coming week, when we shall commence to fix the plunger pole. Our tribute pitches throughout the mine are looking just the same as when last reported on, and we are still breaking large quantities of copper and mundic, which are being dressed as fast as possible.

NEW TRELEIGH.—S. Mitchell, Oct. 22: The men are taking down lode below new shaft to-day; it is 2½ ft. wide, worth 3 tons of ore per fm. for the length of the shaft (8 feet). The 78 fm. level, east of the shaft, is very much improved, but in the same level west it is hardly so large as it was a few days ago, but still a kindly end. The levels in the aggregate are worth fully 3 tons of ore per fathom. The rise in the back of the 70 fm. level, west of the shaft, is worth 1 ton of ore per fm.; the lode in the end is yielding stones of ore, and it is likely in another week we shall be able to say something more of its nature.

NEW WESTMINSTER.—W. Kitto, Oct. 22: I do not know that I have anything new of importance in any part of the mine to report this week. We have nearly finished taking down the lode in the engine-shaft (which will probably give us from 3 to 4 tons of lead), and very busy cutting ground for cistern, and otherwise preparing for fixing the large drawing lift in the 80 fm. level. The ends continue just as usual.

NEW WHEAL LOVELL.—C. Bawden, J. Priske, Oct. 22: The lode in the 62 east is large, but poor; this end is considerably behind the tin ground passed over in the upper levels. The 50 fathom level end is being driven beside the lode; consequently, cannot report its value. The lode in the rise in back of this level is worth 40*l.* per fathom—a splendid-looking lode. The lode in the 40 fathom level end is 3 ft. wide, worth at least 20*l.* per fathom. The lode in the stope in back of the 40 is worth 25*l.* per fathom. Lanyon's shaft, below the 40, is being sunk under the lode for more advantageous sinking. We hope to hole to the 50 in about a fortnight. Colonel's shaft, sinking below the 20, is down 4½ fms., the lode in which is 1 ft. wide, worth from 8*l.* to 10*l.* per fathom. In the 20 east the lode is about 1½ ft. wide, worth 5*l.* per fathom; driving at 2*l.* per fathom—a very promising lode. In the winze sinking below the 20 east the lode is about 1½ ft. wide, worth 20*l.* per fathom. On the whole, the mine is opening up very well, which will be confirmed by future increased sales of tin.

NEW WHEAL TOWAN.—R. Pryor, Oct. 21: The men are making fair progress in communicating the adit level to the deep adit cross-cut. No lode has been taken down during the past week.

NORTH RETALLACK.—G. R. Odgers, J. Harris, Oct. 21: The lode in the 20, north from No. 1 boundary shaft, is 15 in. wide, composed of quartz, &c., producing good lead, and worth from 5 to 6 cwts. to the fathom. The lode is what is usually termed in this neighbourhood a "sandy" lode; this is a favourable feature. We are also glad to say that the best of the lode is in the bottom of the level, and we shall go after it as fast as the water will allow.

NORTH ROSKEAR.—Joseph Vivian, Oct. 22: In developing the tin ground under the 230, west of Doctor's shaft, the lode continues worth about 30*l.* per fathom. The stopes in the back of the 230 are producing tinstones of moderate quality, the lode being worth about 20*l.* per fathom. In Pearce's shaft, sinking under the 205, the copper lode has improved, being now worth 35*l.* per fathom. The stopes in this level are worth about 25*l.* per fathom. In the 205, east of Pearce's shaft, the lode is 1 ft. wide, and contains patches of yellow copper ore. In the 205, west of Pearce's shaft, the lode is 2 ft. wide, containing patches and veins of yellow copper ore. The tin stopes in the Wheal Crofty district are yielding tinstone, which will leave a profit, at the present price of tin, in conjunction with the higher price of arsenic, which we now also have the advantage of. In the 140 fathom level cross-cut, south from Wheal Seton, there is no alteration in the rock, nor is there anything to remark on in any other department.

NORTH TRESKERBY.—R. Pryor, J. Tregoning, T. Jenkin, Oct. 22: The lode in the 140, east of Tresidder's shaft, is 2 feet wide, composed of mundic, spar, and stones of copper ore. The lode in the 130 east is 4 ft. wide, worth 1½ ton of copper ore per fm., a kindly lode. The lode in the 120 end, east of shaft, is still small and unproductive. The lode in No. 3 winze, sinking in the bottom of this level, is 4 feet wide, worth 2 tons of good ore per fathom. The lode in the stopes east and west of No. 2 winze is worth 2½ tons of copper ore per fathom. The lode in the 110, driving east of shaft, is 3 ft. wide, worth ½ ton of copper ore per fm. The stopes in the back of this level are worth 5 tons of ore per fm.

OKEL TOR.—J. Rodda, Oct. 22: We have this day communicated the rise in the back of the 80 with the winze in the bottom of the 65, which will be a good guide to our future operations in the 80, and it has also well ventilated both levels; the lode here looks very well, and is worth 4 tons of ore per fm. The stopes in the bottom of the 65, east and west of the eastern winze, will yield 4 tons of ore per fm. The 65, west of Gerry's cross-cut, will yield 3 tons of ore per fm. In this level, east of the cross-cut, the lode is poor. The pitches, upon the whole, are looking pretty well.

OLD GUNNISLAKE.—H. Rickard, Oct. 22: From the present indications in the 91 fm. level cross-cut, south of Michael's, my impression is we are nearing the lode, as good spots of rich grey ore have been taken from the cross-course. No alteration at Parker's. The tribute department is much as usual. We are busily engaged in dressing, which, I am glad to say, is thus far turning out well.

PEDN-AN-DREA UNITED.—W. Tregay, J. Thomas, Oct. 17: Sump: In the 140 west the lode is worth 10*l.* per fm. In the 130 west the lode is worth 8*l.* per fathom. In the 130 west rise the lode is worth 6*l.* per fm. The progress made at these points has been smaller than usual, in consequence of a breakage of a minor character at the angle below the 100, which let the water into the 130; this is now put right. In the 120 east end the lode is worth 12*l.* per fm. In the 120 west winze the lode is worth 10*l.* per fm. In the 100 east rise the lode produces stones of tin, and the ground is favourable for rising. In the 68 east no change to report; large quantities of tinstuff, and occasional good stones of tin. —Cobbler's: In the 120 east we have not yet reached the footwall of the lode, which produces occasional stones of tin. In the 120 west we have commenced cutting through the lode, the north part being unproductive, but from indications we expect a more productive part to be standing south. The stopes in bottom of this level are worth 20*l.* per fm. In the 110 east winze the lode is worth about 6*l.* per fm.—North Mine: The stope in back of 55 west is worth 15*l.* per fm. The pitches in the upper levels are looking well for a continued production of fair quality tinstuff. No other change to report.

PENHALE UNITED.—Richard Pryor, Henry Bennetts, J. Pryor, Oct. 21: Phillips's Engine-shaft: No lode has been taken down in the engine-shaft sinking below the 90 during the past week. The ground is still spare for sinking, in consequence of so much water, but when the plunger-lift is fixed we shall be able to take up a great portion of it, which will very considerably increase our speed in sinking. The lode in the 90, driving north of this shaft, is worth 3 cwts. of lead per fathom; the lode in the rise in back of this level is worth 5 cwts. of lead per fathom. Hall's shaftmen are at present engaged in stoping the bottom of the 80, south of shaft, in order to bring the water back to Phillips's engine-shaft. The 80 is cleared north of Hall's shaft 27 fathoms; it is still full of stuff, and in the same run that has been met with in the levels above. All the other places without change to notice since our last report.

PENHALE WHEAL VOR.—W. H. Martin, Oct. 21: We are progressing very favourably with the sinking of the engine-shaft below the 94; on Monday next we shall commence to cut ground for bearers and cistern. No change to remark on the cross-cut north at this level. I have set a cross-cut to drive south to intersect the south lode, at the same price as the north one, 7*l.* per fathom.—Penhale Lode: No lode taken down in either Ritchie's shaft or the 60 west end since last advice. The tributers are getting fair wages.

PRINCE OF WALES.—J. Gifford, Wm. Gifford, Oct. 22: In the 65, both east and west, we are driving by the side of the lode; both ends when last taken down were precisely of the same value as last reported—the former 20*l.*; and the latter 25*l.* per fathom. In the 55 east we are driving by the side of the lode; the lode is 3 feet wide, composed of capel, quartz, and gossan, with beautiful light killas by the side of it, the same as accompanied our best courses of ore throughout the mine. In the 55 west the lode is 2½ ft. wide, principally capel. The winze in the 55 east is worth 15*l.* per fathom, on an average; a floor of capel crosses the lode. The stope in the back of the 55, west is worth 18*l.* per fathom. The cross-cut south, in the 55 west, towards the supposed new south lode, is letting out more water, and has intersected a small branch of capel, the same as seen in the level above between the two lodes. The supposed new lode, in the 45 west, is large, and now worth 15*l.* per fathom. No change in any other part of the mine.

PRINCESS OF WALES.—G. Rickard, Oct. 21: Since last report the sinking of the engine-shaft is highly satisfactory, which is now down 14 fms. 3 ft., in a beautiful channel of ground for the production of copper ore. We continue to make good progress in every branch of our surface operations. We hope to be ready for the engineers to commence fixing the engine by the end of next week.

REDMOOR.—T. Taylor, Oct. 22: The lode in the 25 east is a little smaller going into the elvan, towards the lead lode, but of equal value, worth about 8*l.* per fathom, and the ground very easy. The stopes in the back of this level are without change. We have good stones of tin from the 25 west. The lode in the 12 fm. level east is 4 ft. wide, usual character, and still worth about 12*l.* per fathom.

ROARING WATER.—H. Thomas, Oct. 20: I do not see any particular change in our points of operation during the past week, except that the caunter appears more congenial than I have yet seen it for the production of mineral; the ground is soft, and the lode large and easy for exploring.

ROSECLIFF AND TOLCARNE.—R. Pryor, Oct. 21: The lode in the 50, driving east of Lindo's engine-shaft, is getting very large, and composed principally of spar, with mundic, blende, and spots of silver-lead intermixed; the end at present is letting out a large stream of water, which is a favourable indication. The lode in the winze sinking below the 30 fathom level is getting harder, and increasing in size.

SORTRIDGE CONSOLS.—J. Richards, Oct. 22: In the 152, east of Hitchins's shaft, the lode, so far as taken down, maintains its size and general character—

capel, quartz, peach, mundic, priah, and good stones of ore. The driving is now by the side of the lode, in favourable ground for progress.

SOUTH CONDURROW.—J. Vivian and Son, Wm. Williams, Oct. 17: In the 93, east of King's shaft, we are driving south on the western side of the cross-course, and west on the south part of the lode, in order to communicate with the cross-cut, south from said shaft, where the ground is at present a little disordered. In the 83, west of King's shaft, we are at present driving south, in order to get under the great tin part of the lode. In the 71, west of King's, we are cross-cutting south through the tin part of the lode, which is producing very good work, and will lay open good ground for stoping. In the 61, west of King's we are at present driving in the granite, on the south side of the lode, but within the last few days we have cut a little into the lode, which is rich for tin. In the 51, west of King's, we have been driving on the north part of the lode, but have to-day set to drive south, in order to lay open the south part of the lode. In the 20 east, on the middle lode, we are laying open good tribute ground. The tribute department and tin stopes, west of King's, are looking very well, consequently our sales of tin will be very much on the increase.

SOUTH DARREN.—J. Boundy, W. H. Boundy, Oct. 19: The lode in the 70 west has somewhat improved in appearance during the past week; and, judging from the present good appearances, we expect a further improvement shortly. The lode in the 60 west is altogether 3 ft. wide, containing good lead and copper ore, worth 20*l.* per fm. There is no other change in the mine to notice since our last report. We sampled to-day 30 tons of silver-lead ore.

SOUTH FOWEY CONSOLS.—F. Puckey, Oct. 19: We are urging on the sinking of the engine-shaft with all possible speed, and are now down 25½ fathoms below the adit level. The ground in the shaft is of a very congenial character for producing copper, and we expect we are near the lode, as the water is issuing very strong from the bottom of the shaft, and is highly impregnated with copper.

SOUTH GREAT WORK.—S. J. Reed, E. Chegwin, Oct. 21: In the 17, west of Boase's shaft, the No. 1 lode is 1½ ft. wide, with a good leader of tin, worth from 7*l.* to 8*l.* per fathom; driving at 40s. per fathom. The cross-cut south progresses favourably, in a beautiful channel of ground. The prospects are very encouraging.

SOUTH HERODSFOOT.—W. Goldsworthy, Oct. 22: We are making fair progress in driving the cross-cut in the 100 fathom level. The ground is much of the same character as for some time past. The engine and pitwork are in good order, and working well.

SOUTH WHEAL GRENVILLE.—G. R. Odgers, Wm. Bonnetts, Oct. 17: We think the ground is changing in the shaft because we see some white elvan coming in at the south side; if we can get an easier channel of ground we think this lode will be found to produce copper and tin ores.

ST. JUST AMALGAMATED.—R. Pryor, Wm. White, R. Wearne, Oct. 20: The lode in Phillips's engine-shaft, sinking below the 50, is 2½ feet wide, and producing good stones of tin, but not enough to value. The lode in Saveall's engine-shaft, sinking below the 100, is worth 11*l.* per fathom, and improving. The lode in the 100, driving east of shaft, is worth 5*l.* per fathom. In this level, driving west of the shaft, the lode is also worth 5*l.* per fathom. The lode in the 90, west of the shaft, is worth 4*l.* per fathom.—Owl Lode: The 40 fm. level end men, north of Reddipper shaft, are at present cutting in the side of the level in order to prove a part of the lode which went off about 6 fathoms behind the end, and when accomplished we fully believe will prove to be the main part of the lode. The lode in the 20, driving north of shaft, has improved, being now worth 7*l.* per fathom. The lode in the 10 north is worth 4*l.* per fathom. The lode in the 10 north, on the branch, has improved, now worth 10*l.* per fathom. The lode in the winze sinking below the adit is worth 5*l.* per fathom. The lode in the 62 west, on Pryor's lode, is worth 7*l.* per fathom. No other change to notice since last report.

TAMAR VALLEY.—John Goldsworthy, Oct. 22: The water is in fork as deep as the pumps are dropped, and the 17 and 27 fathom levels are drained; there is, of course stuff in the levels, which must be cleared to enable me to see and report fully on the lode; the lode in the levels standing, so far as can be seen, is large, and contains silver-lead, fluor-spar, &c.; and, from present appearances, will work at a profit. We are busily engaged putting down main-rod, &c., preparing to fix plunger-lift in the 27. Our prospects are exceedingly cheering.

TREREW.—Oct. 20: The ground in the engine-shaft is a little harder than it was, but still is very good ground. The shaft is now down 4½ fms. below the 20. The ground in the 20 cross-cut is better than it was; it can now be driven for 3*l.* per fm., and no doubt but that it will continue to the lode, which we hope to reach by the end of next month.

VIGRA AND CLOGAU.—W. J. Holman, Oct. 22: The lode in the stope east from No. 6 shaft is 6 feet wide, and some parts of it look well. The lode in the western stope is 5½ feet wide, and has not yielded any gold since last report. The water still continues very quick in this shaft. The lode in the end of No. 1 level, now being driven towards No. 6 shaft, is 4 feet wide, and at the present moment poor; good progress is being made in driving. The lode in the stope in bottom of No. 4 level has slightly contracted since last report, but again shows signs of enlarging. At the Old Clogau Copper Mine the sinking of the shaft is being continued as usual; and during the wet weather the steam-engine will be kept continuously at work, keeping the mine dry. At the Vigra Mine the Jenny's adit is still in dead rock. At the reduction works 16 heads of stamps are at work.

WEST BASSET.—G. Lightly, Oct. 21: Grenville's Shaft: In the 164 east the lode is small and unproductive. In the 164 west the lode is from 3 to 4 ft. wide, containing stones of ore. In the 154 east the lode is worth 1 ton of ore per fm. In the winze in bottom of the 154 west the lode is also worth 1 ton of ore per fm. In the rise in the back of the 144 west the lode is worth 2 tons of ore per fm. In the 134 west the lode contains stones of ore.—Middle Lode: In the 65 west the lode is worth 6*l.* per fm. for tin. In the winze in the bottom of the 65 east the lode is yielding tin stamping work. In the 52 west the lode is yielding good quality tin stuff.

WEST CARADON.—W. Johns, N. Richards, Oct. 20: In the 170, west of cross-cut, on Vivian's lode, the lode is very regular, consisting of quartz, mundic, and spotted with yellow copper ore. In driving the cross-cut north of Allen's lode, at the 170 east, we are making fair progress, and as we are advancing we are cutting crossing-heads, and letting out a pretty deal of water, thus showing that we have a lode ahead of us, and as we before said in our former report we can hear the men blasting holes in South Caradon very plain, where they have a good lode of ore. Dunstan's lode, in the 104, east of cross-cut, and the 114, west of winze (Gonamena), we are pushing on as fast as possible. The 38, west of Crouche's shaft, on Allen's lode, is looking somewhat promising. The 20 cross-cut, north of Marinas shaft, we have driven 3 fms., but not yet through the elvan.

WEST DRAKE WALLS.—Thos. Gregory, Oct. 21: The ground in the 40 fm. level cross-cut south is improved for driving, and there are now some veins of copper ore crossing the end, with an increase of water. In the 40 fathom level cross-cut north we have a beautiful channel of killas, faced with copper and mundic. There is no other change to notice since last report.

WEST GREAT WORK.—S. J. Reed, Oct. 21: The great north lode in the 50, east from flat-rod shaft, is producing tinstuff for the stamps. In the 40 the lode is 1½ foot wide, worth 6*l.* per fathom, with much water oozing from it. The winze sinking below the 30 still turns out 1½ ton of good ore per fathom. In the 8, east from Watson's shaft, the lode is 2 feet wide, and worth 15*l.* per fathom. This level, driving west of Harvey's shaft, is worth 6*l.* per fathom. The lode in the stopes in back of the adit, west of Watson's shaft, is worth 20*l.* to 25*l.* per fathom. In the adit, driving east, the lode is now producing more tin, worth 4*l.* per fathom. The pitches throughout the mine continue to yield the usual quantity of tinstuff.

WEST PRINCE OF WALES.—Wm. C. Cock, Oct. 20: The south lode in the south shaft is not so large as it has been; it is now about 18 to 20 in. wide, of just the same character as when last reported; the ground each side of the lode is becoming firmer, and I now hope to find the lode more settled than it has been hitherto. The lode in the 16, west of this shaft, is larger, consisting of a soft decomposed clay-slate and flookan, with a small branch of capel intermixed with mundic on the footwall. The eastern end is without any change; this remark also applies to the 16 west, on the main lode, at the north shaft.

WEST WHEAL KITTY.—W. Vivian, Oct. 20: In the middle adit end we are still driving south through the lode. There is no change to notice since our last report. The lode in the bottom of the middle adit is improving. Our stamping-mills are doing better than they have been for some time past, but we have not yet got a full supply of water.

WEST WHEAL TREMAYNE.—S. Roberts, Oct. 20: The lode in the 32 west still holds its size and quality, yielding 1 ton of ore per fathom, with occasional stones of good work for tin. In the 20 fm. level end west the lode is small, but producing some rich ore and prian. No other change to mention.

WHEAL AGAR.—E. Rogers, Oct. 21: We are making much better progress in sinking the flat-rod shaft, consequent on the ground being easier for breaking than for several months past. The lode in the 110, east of engine-shaft, still maintains its size and value; worth 12*l.* per fathom. The lode in the engine-shaft is just the same as last reported.

WHEAL BULLER.—J. Inch, J. Brown, Oct. 21: We have nothing new to report since our last. Next Friday being our setting-day we will send a full report. Our machinery is working well. We are getting on as fast as possible with our next batch of tin.

WHEAL GRENVILLE.—G. R. Odgers, W. Bonnetts, Oct. 17: The lode in the shaft sinking below the 130 is 3 to 4 ft. wide, of quartz, gossan, &c., containing a little tin, but not to value, although the indications are good. The lode in the 130 west is 4 ft. wide, and worth 5*l.* per fm. The lode in the rise above the 110 west is 3 ft. wide, producing copper ore and tin, worth 7*l.* per fm. The lode in the 100 west is 5 ft. wide, and worth 12*l.* per fm.—a strong lode. No lode has been taken down in the 90 east. The lode in the winze sinking below the 90 west is 2 ft. wide, and worth 5*l.* per fm. The lode in the winze sinking below the 80 west is worth 5*l.* per fm. The lode in the 66 west is worth 15*l.* per fm. No other change in this mine. The tributers continue to break about their usual quantity of tinstone, and we are busy preparing for the next sale.

WHEAL KITTY (St. Agnes).—S. Davey, Wm. Polkinghorne, Oct. 17: In the 82, driving west of Holgate's shaft, the lode is still worth for tin and copper 15*l.* per fathom.—New Shaft, Pryor's Lode: This shaft is being pushed on as fast as possible below the 94. In the 94, driving east of shaft, the lode is worth for tin 17*l.* per fm. In the 94, driving west of shaft, the lode is worth for tin 16*l.* per fathom. In the 82, driving east of shaft, the lode is much the same as last reported, worth for tin 10*l.* per fm. In the 82, driving west of shaft, the lode is 2½ ft. wide, and worth for tin 15*l.* per fm. In the 65, driving west of shaft, the lode is producing a little tin. In the winze sinking below the 65, west of shaft, the lode is worth for tin 12*l.* per fm.—Caunter Lode: In the 82, driving north of shaft, the lode is improving in appearance, and producing good work for tin.—Vottle Lode: In the 24, driving east of cross-cut, the lode is still poor.

WHEAL KITTY (Uny, Lelant).—W. Rosewarne, Oct. 22: South Russoe Lode: The lode in the boundary shaft, sinking below the 40, is worth for the length of the shaft (9 feet) 6*l.* per fathom. The lode in the winze sinking below the 40, east of the shaft, is worth 7*l.* per fathom.—North Gowan Lode: The lode in Bolitho's shaft, sinking below the 20, is worth for the length of the shaft (9 ft.) 8*l.* per fathom. The lode in the 50, east of the rise, is worth 4*l.* per fathom. The lode in the 20, east of the shaft, is producing a little tin. The lode in the 20, west of the shaft, is unproductive.—North Russoe Lode: The lode in the 160, west of Bolitho's, is worth 4*l.* per fathom. The lode in the 160, east of Bolitho's, is worth 3*l.* per fathom.—New Lode: The lode in the 140, east of the cross-cut, is opening tribute ground. No other change to notice.

WHEAL MARY ANN.—P. Clymo, J. Harris, J. Stevens, J. Skeat, Oct. 22: Clymo's shaft is sunk 15½ fms. under the 230: the cross-cut in this level is extended 35 fms. towards the lode. In the 220 north the lode is 1½ ft. wide, producing good stones of ore. In the same level south it is 3 ft. wide, worth 20*l.* per fm. In the 210 north the lode is 2 ft. wide, producing stones of ore. In the same level south it is 2 ft. wide, worth 6*l.* per fm. In the 200 north the lode is 3 ft. wide, worth 4*l.* per fm. In the same level south it is 2 ft. wide, worth 7*l.* per fm. In the 190 north the lode is 3 ft. wide, worth 8*l.* per fm. In the 180 fm. level north the lode is 2 ft. wide, worth 4*l.* per fm. The stopes and pitches are producing much as usual.

WHEAL SPARNON.—W. Tregay, Oct. 17: In addition to stoping the north cross-cut for ventilation we have been costeaning to ascertain the exact position and character of the north lodes: one of these we find producing a kindly gossan on the back, and have commenced sinking on its course; a little more must be sunk on it before we can report decidedly on its character.

WHEAL UNY.—Samuel Coade, Matthew Rogers, Oct. 17: The lode in the 140, east of engine-shaft, is worth 40*l.* per fm. The other points in the mine are of the same value as reported on last week.

FOREIGN MINES.

ST. JOHN DEL REY.—Morro Velho, Sept. 17: Morro Velho produce for August, 7506 oits.: from 4819 tons ore, yield 1·675 oits. per ton. Morro Velho cost for August, 4933*l.*; loss for ditto, 2034*l.* Morro Velho produce 11 days of September, 2336 oits.; yield, 1·280 oits. per ton. Gaia produce for August, 1882 oits.; from 847 tons ore, yield 2·22 oits. per ton. Gaia cost for August, 469*l.*; Gaia profit for ditto, 336*l.*; Gaia produce 11 days of September, 639 oits.; yield, 2·188 oits. per ton.

DON PEDRO.—Mr. F. S. Symons: Produce for August amounts to 19,094 oits. (equal to 1626 ozs. troy) of gold, at 8s. 6d. per oit., 5989*l.*; cost, 2060*l.*; profit, 3929*l.* The operations have proceeded with the usual regularity, the attendance has been good, and the produce enables us to show a good profit. The general stopes have yielded remarkably well; No. 5 westerly continues to yield ore above the common in point of richness. We have holed to Hilcke's level in descending on it from winze sunk from Alice's; in size and gold-bearing proportion it is all that can be desired, and though no bunches or defined line have yet been discovered, we are sanguine that we shall yet do so.—First division of September: Extract from Mr. F. S. Symons's letter of Sept. 18: Produce cleaned up to date, 8222 oits. Operations have been carried on with the usual regularity, and the lode treated has yielded remarkably well: so good a produce without box work is rare. The produce for this month bids fair to exceed that for last. No. 5 maintains its size and auriferous quality. In the exploratory works there is nothing of importance to notice.

ROSSA GRANDE.—Mr. Ernest Hilcke reports: The produce for the month of August amounts to 1630 oits. of gold; 201 tons of ore have been extracted and treated, and yielded the above-mentioned amount, equal to 8·1 oits. per ton.—Government (Brazilian) Grant: The directors have the pleasure to state that the company's agents in Rio (Messrs. John Moore and Co.) advise that the Government grant has been obtained. The Imperial Decree was published in the Brazilian official *Gazette* of Sept. 13.—First Division of September: Extract from Mr. Ernest Hilcke's letter, dated Sept. 16:—"The stopes above level have been holed again in old workings, which still extend east; the distance between the bottom of these old workings and our main level is about 7 fms. on the underlie, and the lode from 5 to 6 ft. wide. Our main supply of stone in the previous month we had from this place, and found its auriferous nature of a good yield, but since the last ten days this lode has undergone a remarkable change as to quality; judging from the stone treated it will not come up by half of the previous month; but, as no change is visible in the appearance or size of the lode, I have no doubt it will soon recover its known riches."

ANGLO-BRAZILIAN.—Mr. F. S. Symons reports: The produce for August amounts to 3830 oits. (442 ozs. troy), exceeding that for July by 382 oits. Produce and cost:—Produce, 3830 oits., at 9s., 1723*l.*; cost, 1561*l.*; profit, 162*l.* An improvement has taken place in the standard of the stone generally, and a separation made of the lode encountered in Dawson's shaft; the deepest part of the mine has proved its auriferous quality to be exceedingly promising. First division of September—Extract from Mr. F. S. Symons's letter, dated Sept. 18: "The attendance of freemen has fallen off, and the duty being performed in the mine is, in consequence, not so good as it has recently been. The features of the lodes generally are without change to note since last reported on. Operations in the Buraco Secco, Haymen's Shaft, and the Mina de Barril are under suspension for want of force; but Dawson's Shaft, Dawson's South, and Foster's, and all points where stone yields favourably, are well manned."

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, Sept. 14: Owing to the excessive hardness of a seam encountered in the tunnel only 8 feet were made last week. I am happy to say, however, we are now almost through it. During the present week I ought to strike Monitor coal. Coal is about the last thing I should expect to find in such a formation as ours, and the only resemblance that it bears to that valuable product is that it is black; but it has a vitreous appearance, and is, in reality, a species of volcanic glass, known by mineralogists as obsidian, a silicate of alumina. At the back of this, as already explained (report of May 30), there may be traced a quartzose formation in the surface, and which I am very anxious to see at depth.

— Sept. 21: During last week 11 ft. of tunnel were completed.

RHENISH CONSOLS.—George Sweet, Oct. 16: Christiana: The lode in the eastern drivage, in the 20 lachter level, will still afford 1½ ton of lead ore per lachter. The western end, in this level, is at present poor. The drivage west, in the 10 lachter level, will afford 12 centners of lead ore per lachter. The different stopes are affording about the same quantity of ore as when last reported on. The men are making fair progress in sinking Astley's shaft below the 20 lachter level.—Bliebach: In the drivage west, on the middle lode, in the adit level, we have cleared through the ancient workings alluded to in my last report, and found them to be 5 lachters long; the western breast of these workings is showing lead, but as we have yet opened but little I cannot say much about it. The stopes in the roof of this level will afford 20 centners of lead ore per lachter. A stope in the roof of the 10 lachter level, on the middle lode, will afford 25 centners of lead ore per lachter. We have commenced driving west on the middle lode from the cross-cut in the 10 lachter level; the lode is presenting a favourable appearance, and will afford 10 centners of lead ore per lachter. The rise in the roof of the 10 lachter level, on the north lode, is without change There has been some rain, but not yet in sufficient quantities to enable us to pump with water-power.

CAPE COPPER.—J. Williams, Sept. 12: Ookiep Mine: The shaftmen have been hindered the past month by the breaking of one of the new door-pieces recently put in the drawing-lift. When blasting a shallow hole, in cutting ground for penthouse, which was necessary to be put in at the bottom of the 30 fathom level, to make it safe for the men to work under, a stone unfortunately struck the door-piece. During the past month the shaft has been sunk 6 ft. 2 in., without any change to notice, it is now 2 fms. 2 ft. 2 in. below the 30 fathom level; re-set, on September 1, to three men and six labourers, at 40*l.* per fathom, for 2 fathoms, or the month. The 30, being driven south-west from engine-shaft, has been extended in the past month 3 fms. 4 ft. 6 in., in a splendid course of copper ore, that has yielded about 10 tons per fathom, and, from its present appearance, is likely to continue. The 20, west from engine-shaft, has been extended during the past month 4 fms. 1 ft. 6 in. through unproductive ground. In the first 6 feet driven we met a slide that has shifted the mineral course out of its regular bearing, the last 3 fms. 1 ft. 6 in. being driven on the slide. The bearing is about 43° west of south, and the ground shows strong indications of copper ore in that direction; re-set, Sept. 1, to two men and two labourers, at 10*l.* per fathom for the month. The 20, east from south level, has been extended during the past month 2 fms. 3 ft. on the south mineral course, through ground producing a little copper ore, but not enough to value. In this level we have driven through the eastern flookan course, and find the mineral course heaved to the north about 6 feet, and its appearance east of the flookan course, of much the same character, chiefly composed of quartz, specular iron, and rich stones of copper ore intermixed; re-set, Sept. 1, to two men and two labourers, at 12*l.* per fathom, for 3 fathoms or the month. The 20, north from engine-shaft, on the flookan course, has been extended 4 ft. 7 in., without any change to notice; re-set, Sept. 1, to two men and two labourers, at 14*l.* per fm., for 3 fathoms or the month. The stopes in the back of the 20, working by two Englishmen and 24 native labourers, are looking very well, and I am pleased to remark that all the labourers both at surface and underground have been very regular at work during the past month, and have given every satisfaction. The August extracts are—500 tons, of 21 cwts., or 525 tons, of 2240 lbs.; average per cent., 31⅛.

FORTUNA.—Oct. 10: Canada Incosa: The 110, east of O'Shea's shaft yields 1¼ ton of ore per fathom. The lode is large and strong, and is opening moderately productive ground. The ground in the cross-cut in the 100 fathom level, west of O'Shea's shaft, is still hard. The 90, west of Judd's shaft, produces 2 tons of ore per fathom; the lode is very compact and regular, and the ground is easy for driving. In the 80, west of Judd's shaft, the lode, which is kindly in the bottom of the end, yields ¾ ton of ore per fm.; the ground is easy for driving. The granite in the 80 cross-cut, south of Henty's shaft, is hard for driving. In the 70, east of Carro's shaft, the lode is small, and the ground hard. The 50, east of San Pedro shaft, yields ¾ ton of ore per fm.; the lode is large and strong, and of a kindly appearance.—Shafts and Winzes: Henty's shaft, sinking below the 90, is in hard ground, and off the lode. The lode in Lounde's shaft, below the 70, is not quite so productive as it was, now yielding ¾ ton of ore per fathom. Diaz' winze, below the 55, produces 1 ton of ore per fathom. The lode is getting smaller in this winze. Antonio's winze, below the 90 fm. level, is going down in a kindly lode, worth 1 ton of ore per fathom. Casada's winze, sinking below the 40, yields 1¼ ton of ore per fathom. In this sink the lode is very strong, consisting of quartz, carbonate of lime, and ore.—Los Salidos Mine: The 100 fm. level, driving west of Morris's engine-shaft, produces ¾ ton of ore per fathom; the lode is split into two parts, and has much declined in value in the last few days. In the 65, west of San Carlo's shaft, the lode having been small and unproductive for some time, the driving is stopped. The 100, east of Morris's engine-shaft, is worth 1 ton per fathom; this end has met with a strong cross joint, disarranging the lode. The 90, east of Cox's engine-shaft, has passed through a strong cross-course, and we are expecting to find the point of the lode. The 75, east of San Pablo's shaft, yields ¾ ton of ore per fathom; the lode is small, and the ground is rather hard in this end.—Shafts and Winzes: There is a good lode in the eastern end of Buenos Amigos shaft, sinking below the 90, worth 1 ton of ore per fathom. San Gabriel shaft, sinking below the 90, yields 1 ton of ore per fathom. The men are getting on very slowly indeed with this sink; we hope to get it down this month. Corzo's winze, below the 90, will reach the 100 the month; the lodo is small and poor. Tomas' winze, below the 65, produces 1¼ ton of ore per fathom; the lode is large and strong, and of a kindly appearance. In Ramon's winze, below the 75, the lode is very compact and firm, producing 1¾ ton of ore per fathom. There has been no important change in the tribute department in the past month, and the stopes continue to yield a fair average quantity of mineral. The machinery and other surface works are proceeding with perfect regularity. We estimate the raisings for October at 450 tons.

LINARES.—Oct. 10: West of Engine-Shaft: In the 110 fm. level, driving west of Santo Thomas engine-shaft, the lode is small and poor. The 85, west of Warne's shaft, yields ½ ton of ore per fathom: the lode has somewhat improved in appearance during the past week, containing more calcareous spar and lead ore. The 85, east of Warne's shaft, is wet, and difficult to drive. The 45, east of No. 159 winze, produces 2 tons of ore per fathom; the lode is very compact, consisting of quartz and lead ore. The 31, east of San Francisco shaft, is worth 1½ ton of ore per fathom; this end is easy for driving, and is opening a good run of tribute ground.—East of Engine-Shaft: In the 95, east of Taylor's cross-cut, the lode is very wide, and contains a little lead. The lode in the 95, east of Taylor's shaft, is large and strong, yielding stones of lead ore.—Winzes: No. 160 winze, sinking below the 61, is communicated with the 75 fathom level. No. 161 winze, below the 85, worth 1 ton per fathom, is communicated with the 95 fathom level. In winze No. 162, below the 31, the lode, which is not so productive as it was a few days ago, yields 1 ton of ore per fathom. Winze No. 163, below the 85, is worth 1½ ton per fathom; this is going down in a very kindly lode, consisting of calcareous spar and lead ore.—Quinientos Mine: The 32, west of Taylor's engine-shaft, yields ½ ton of ore per fathom; the lode has failed considerably in this end in the past week. In the 32, east of Taylor's shaft, the lode has also fallen off very much in value lately, and is now worth only ½ ton per fathom.—Shafts and Winzes: The summen are making very good progress in sinking Taylor's engine-shaft below the 32. Addis's shaft, sinking below the surface, yields ½ ton per fathom; the lode is more open than it was, but is still very difficult to sink. In Cox's shaft, sinking from surface, the men are getting on very regularly.

ALAMILLOS.—Oct. 12: The 4th level, driving east from La Magdalena shaft, yields ½ ton of ore per fathom; the lode is improving, and the ground continues hard. The 4th level, west of La Magdalena shaft, is suspended. The 5th level, east of the above shaft, produces 2 tons of ore per fathom; the lode is of a very promising character. The 5th level, west of La Magdalena shaft, also yields 2 tons per fathom; the lode is vughy, and is opening splendid tribute ground. In the 5th level, east of Taylor's engine-shaft, the lode, which yields ½ ton of ore per fathom, is large, and easy for driving. The lode in the 5th level, west of Taylor's engine-shaft, is composed of carbonate of lime and lead ore. In the 4th level, west of San Andriano shaft, the men are cross-cutting north, and we expect to meet with the lode shortly. The lode in the 2d level, east of Judd's engine-shaft, the lode is small and poor. In the 2d level, west of Judd's shaft, the lode, which yields ½ ton of ore per fathom, is well defined, but rather small. The 3d level, east of Crosby's engine-shaft, yields 1 ton of ore per fathom; this is holed to Perez' winze, and has a good appearance. The 3d level, west of Perez' winze, is worth 1½ ton of ore per fathom; this is a good-looking lode, and well defined; granite hard. In the 2d level, west of Morris's shaft, the lode, which yields ½ ton of ore per fathom, has decreased in size, and the ground is much harder for driving.—Shafts and Winzes: In San Enrique shaft, sinking below the 3d level, the men have been putting in penthouse, &c., and sinking is resumed. The lode in Taylor's engine-shaft, below the 5th level, is small and poor, yielding stones of ore occasionally. Henty's shaft, sinking below the 1st level, yields 2 tons of ore per fathom. In Tomas' winze, below the 4th level, the lode is small, and the ground hard. The lode in Juan's winze, below the 3d level, is large, and yields ½ ton of ore per fm.

LUSITANIAN.—Oct. 13: At Taylor's engine-shaft, sinking below the 120 fathom level, the lode is worth 2 tons of ore per fathom.—Basto's Lode: The lode in the 120, east of Taylor's, is 7 ft. wide, composed of quartz and flookan. The 120, west of Taylor's, is worth 2 tons of ore per fathom. The 110 east yields 1½ ton per fathom. The 110 west is full of stuff. The stope above the 70, east of River shaft, is worth 1 ton per fathom. The lode in the 100, east of River shaft, is 1¼ ft. wide, composed of flookan and small stones of ore. The 90, east of the same, is of a similar character. The 70, east of River shaft, is 3 ft. wide, composed of quartz and copper ore, worth ½ ton per fathom. The lode in the 38, west of Perez' shaft, is 6 in. wide, composed of flookan. In the 8, west of Perez' shaft, the lode is 8 in. wide, composed of flookan. The lode in the adit, west of the above, is 1 ft. wide, composed of flookan and country, and small stones of ore. At this point there appears to be branches going off in the north side, but we can say nothing about them yet.—Slide Lode: The lode in the 100, west of Taylor's, is 4 ft. wide, composed of flookan, mixed with country.—Caunter Lode: The 90, east of slide lode, is composed of flookan, and is suspended.—Ponte Lode: The lode in the 28, east of the slide, is 9 in. wide, composed of quartz, impregnated with mundic and lead. There is no change in either of the cross-cuts.—Winzes: Winze No. 77, below the 110, east of Taylor's, produces 5 tons of ore per fathom. There being a great deal of water in winze No. 76, below the 28, west of Perez' shaft, it is suspended. The lode in the winze No. 75, below the adit, west of Perez' shaft, is 8 in. wide, composed of flookan and small stones of ore. The stopes are just as when last reported on.—Carvalhal Mine: At the incline shaft, below the 40, there has been nothing done since last report, the bottom lift having been changed. We shall begin to sink again by the end of this week.—Great Lode: In the 40, east of incline shaft, the lode is worth ⅔ ton of blende per fathom. The 30 east yields ¾ ton of lead per fathom. The lode in the 20, east of incline shaft, is 3 ft. wide, composed of loose quartz and lead, worth ½ ton per fathom. The 10, east of incline shaft, is worth 1 ton of ore per fathom.—Caunter Lode: The lode in the 30, west of incline shaft, is 1 ft. wide, composed of quartz, mundic, and lead. In the 40, west of incline shaft, the lode is 2 ft. wide, composed of quartz, with mundic and stones of lead.—North Lode: In the top adit level, west of River Calma, the lode is 3 feet wide, composed of irony quartz, with spots of yellow copper ore, and a little black oxide of copper, also mundic. Winze No. 7, below the 30, west of incline shaft, is communicated with the rise above the 40.—Stopes: The stopes above the 10 and the 20, east of incline shaft, each yield 1 ton of ore per fathom. The stopes above the 30, east of winze No. 5, is worth ¾ ton per fathom, and those above the 40, east of incline shaft, produce 2 tons of blende per fathom.

NEVADA LAND AND MINING COMPANY.—We copy the following paragraph from the *Humboldt Register*, Sept. 5, 1868, referring to this company:

"QUICK TRIP.—J. J. Dunne, well-known in Humboldt county as one of our early pioneers, who has been absent for over two years on a tour through Europe, returned to Humboldt last Tuesday, making probably the quickest through trip from London ever made. Mr. Dunne sailed in the Cunard steamship Russia, making a remarkably quick passage across the Atlantic, thence overland by rail and stage, reaching Reno in 20 days and 18 hours travelling time from London. Mr. Lunne is to take charge of the English company's mill and mining property on the Truckee, and proposes to crush Humboldt ores at such reduced rates that it will be an object for our mine owners to contract with him for the reduction of their ores in large quantities. The mill is one of the finest ever built in the State, and is perfect in all its departments. The railroad passes within a few hundred yards of it, thus making it easy of access."

[ADVERTISEMENTS.]

From Mr. EDWARD COOKE:—The market has been very active during the week, with a good demand for Great Wheal Vor, Trumpet Consols, Providence, Wheal Kitty (St. Agnes), and West Great Work shares. These are all tin mines, and the late rise in the price of that metal will tend to enhance their profits. East Caradon, Frank Mills, and Chiverton shares are among the other mines that have been dealt in. The principal excitement has been in CHIVERTON shares; the late discovery of lead, which last week was estimated to produce 3 to 4 tons of lead per fathom, has fallen off to some extent. No one at all conversant with mining matters will be surprised to find that the lode at this shallow depth fluctuates in its productiveness. A main shaft will be commenced on this lode, and in the course of a few fathoms sinking it will intersect this fine course of lead. Of course, it is premature to say with certainty to what this discovery may lead, but it is considered by those who have seen it a most important feature in this very important lead mining district, and my own opinion is the shares will attain a very high price when this new lode is further developed. FRANK MILLS, another lead mine, second scarcely in importance to West Chiverton among English lead mines, is, I am informed, making profits equal to about 25 per cent. per annum on the present price of the shares, and the mine gradually improving. The shares are not at all unlikely to attain their original price—8*l.* DRAKE WALLS shares have advanced, but not to the extent the improvements in the mine would seem to warrant. The recent rise in the price of tin will, it is said, enable this extensive mine to be worked at a good profit.

WEST GREAT WORK shares have participated in the more active state of the market. They have for some time past been unduly depressed, seeing that the mine (notwithstanding the low price of tin, and want of water for the effectual working of the stamps), has for some time past been working at a profit. The shares are really cheap, as a mining adventure, at double their present price. The adjoining mine—SOUTH GREAT WORK—is really deserving of especial notice. It is an adventure in which a few pounds may be laid out without (in my opinion) the least risk of loss. The shares may now be bought at a few shillings, and the mine is already raising tin, and the costs of working are very light.

I have touched upon a few mines that I consider deserving of attention, but there are others in the list of equal promise, no doubt, and upon which I am prepared to offer an opinion if solicited. PESTARENA GOLD MINING shares have been in good demand, and the price, as I expected it would, has advanced. The shares should be bought largely while they are yet low. TRUMPET CONSOLS is admitted to be one of the best tin mines in Cornwall, and adjoining this, and immediately to the east, is EAST TRUMPET MINE, having the same lodes as Trumpet Consols, and already producing tin. There are only 2000 shares, and they are held principally by the Trumpet Consols shareholders. I consider them a most eligible share for anyone to buy.

P.S.—The CLIFFORD AMALGAMATED meeting was held on the 21st, when the affairs of the company were put on a sound basis. The mines continue very productive; five points alone in the mines are producing in the aggregate 53 tons of copper ore per fathom, and the rise in the standard will benefit this company.

From Mr. F. W. MANSELL:—The Mining Market during the week has been characterised by an amount of activity that reminded one of the good old times when, with ordinary prudence and sound advice, the investor in British and foreign mines reaped a reward met with in no other class of speculation. CHIVERTON shares, from several reports of a contradictory nature having been circulated, have fluctuated during the week from close upon 8*l.* to 4*l.* sellers. The late discovery is, beyond a doubt, of great value to the mine, but too much may be made of it for market purposes. East Grenville, Great Retallack, Prince of Wales, Wheal Grenville, and East Caradon shares have maintained their late rise, whilst Frank Mills, Great Laxey, and others have steadily improved. TAMAR VALLEY continues to attract great attention, and shares much wanted at quoted prices. The mine will, during the next week, be in fork, when good reserves of lead will be laid open, and the proprietors reap that reward they so well merit. GREAT SOUTH CHIVERTON continues to improve; one part of the lode is now valued at 13 cwts. of rich lead per fathom. Few shares offer better chances than these. The market closes with a very healthy appearance. With the late rise in the price of tin, and an improved market for copper, I look forward to better times for all interested in mines.

PRESENTATION TO CAPT. MARTYN, WHEAL BASSET.—The labouring men of Wheal Basset, taking into consideration the low and depressed state of the county, with the great lack of employment, resulting from a want of enterprising speculation, have felt it incumbent on them to present Capt. Martyn, the managing agent, with a testimonial of their gratitude to him for the manner in which he has opened up an increased field of labour in the mine, by the erection of new stamps on an extensive scale, thus conferring a great and lasting boon on all the neighbourhood. When once the idea was suggested the working men readily and heartily responded to the call, and the result has been that a splendid gold watch and chain was, on Saturday evening last, presented to him on the mine. Capt. Martyn, on receiving the testimonial, said:—"Ever since I have been connected with it I have had at heart the salvation of the mine and the welfare of the adventurers, as also the permanent advantage of the neighbourhood at large. But in pursuing this course I did not once anticipate such honours as you have conferred on me to-day. The gratitude which I feel is far more than words can express, but it arises, not from the value of the present itself, but from an appreciation of the good feeling which it represents on the part of those who have presented it. I shall ever prize it highly on this account, and keep it as long as life endures, and then bequeath it as a heir loom to my child. I heartily thank you for this acknowledgment of your gratitude, and shall at all times feel a pleasure in doing my utmost for the welfare of the mine, and all therein concerned." Several short and pithy speeches were then given by the working miners, to the effect that they all heartily desired and believed

that the undertaking would be successful, and that it would prove remunerative to the adventurers, whilst it tended to the prosperity and welfare of the mine and all the persons employed therein. The company then separated in a cheerful spirit, wishing abundant success to the mine, the adventurers, and managers, hoping that they might for many years afford ample employment to the neighbourhood, as they had for several years past.

*** With last week's Journal a SUPPLEMENTAL SHEET was given, containing—Government Inspection of Coal Mines, No. II. (*illustrated*)—The Bristol Coal Field, No. II.—The Earl of Dudley's Coal and Iron Works—Slate Quarrying in America—Foreign Mining and Metallurgy—Notes on an Excursion of the Miners' Association in the St. Just District—New Safety-Lamp—The Mines and Minerals of Mexico—A Descent into the Rosario Mine in Mexico—Sales of Copper Ores—The French Language—Manufacture of Steel—Speculative Share-dealings, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, OCT. 23, 1868.

COPPER.	£ s. d.	£ s. d.
Best selected..p. ton	76 0 0-	77 0 0
Tough cake and tile	74 0 0-	75 0 0
Sheathing & sheets.	79 0 0-	80 0 0
Bolts	78 0 0-	—
Bottoms	81 0 0-	—
Old (Exchange)	68 0 0-	70 0 0
Burra Burra	80 0 0-	—
Wire.....per lb.	0 0 10½	—
Tubes	0 0 11⅛	—

BRASS.	Per lb.
Sheets .....per lb.	7½d.-8½d.
Wire ..... „	8d.- —
Tubes..... „	10¼d.- —
Yellow Metal Sheath..p. lb.	6¾d.-7d.
Sheets..... „	6½d.-6¾d.

SPELTER.	Per ton.
Foreign on the spot	20 10 0
„ to arrive.. £20 12 6-	20 15 0

ZINC.		
In sheets	£26 0 0-	27 0 0

TIN.	
English blocks	100 0 0
Do., bars (in barrels)	101 0 0
Do., refined	103 0 0
Banca	102 0 0
Straits	£99 10 0-100 0 0

TIN-PLATES.*	Per box.
C Charcoal, 1st qua.	1 5 0- 1 7 0
X Ditto, 1st quality	1 11 0- 1 13 0
C Ditto, 2d quality..	1 4 0- 1 5 0
X Ditto, 2d quality..	1 10 0- 1 11 0
IC Coke	1 1 6- 1 2 6
IX Ditto	1 7 6- 1 8 6
Canada plates,p.ton..	13 10 0- —
Ditto, at works	12 10 0- —

* At the works, 1s. to 1s. 6d. per box less.

IRON.	Per ton.
Bars Welsh, in London	6 10 0- 6 12 6
Ditto, to arrive	6 10 0- —
Nail rods	6 15 0- 7 0 0
„ Staffd. in London	7 10 0- 8 10 0
Bars ditto	7 10 0- 9 10 0
Hoops ditto	8 2 6- 9 15 0
Sheets, single	9 0 0-11 0 0
Pig No. 1, in Wales	3 15 0- 4 5 0
Refined metal, ditto	4 0 0- 5 0 0
Bars, common ditto	6 0 0- —
Do. merch. Tyne or Tees	6 10 0- —
Do., railway, in Wales	6 0 0- —
Do., Swed. in London	10 0 0- —
To arrive	10 0 0-10 0 0
Pig, No. 1, in Clyde	2 13 6- 2 18 0
Do. f.o.b. Tyne or Tees	2 9 6- —
Do. Nos. 3,4, f.o.b. do.	2 6 6- 2 7 0
Railway chairs	5 10 0- 5 15 0
„ spikes	11 0 0-12 0 0
Indian Charcoal Pigs, in London, p. ton	7 0 0- 7 10

STEEL.	Per ton.
Swed., in kegs(rolled)	— - —
„ (hammered)	15 0 0-15 10 0
Ditto, in faggots	16 0 0- —
English, spring	17 0 0-23 0 0
QUICKSILVER (p. bottle)	6 17 0- —

LEAD.	Per ton.
English Pig, com.	19 0 0-19 5 0
Ditto, LB	19 5 0- —
Ditto, WB	21 10 0- —
Ditto, sheet	20 0 0- —
Ditto, red lead	21 0 0- —
Ditto, white	27 0 0-30 0 0
Ditto, patent shot	22 0 0-22 10 0
Spanish	18 15 0- —

REMARKS.—The continuance of a favourable course still marks the position of the Metal Market, and a moderataly active state of business is now in operation, and there seems every reason to anticipate that this improvement will be permanent, and that it will not merely remain in its present condition, but will go on to make further advances, until we attain once more those prosperous times which formerly marked the operation of the metal trade. There is now evidently a movement in the market in the right direction, and prices generally are becoming much firmer; while in some instances advantages are occurring, which bid fair still to increase, and there is little doubt that the days of low prices in metals are drawing to a close, and that very soon much more satisfactory rates will be established. Already it is found impossible to execute many orders which have come over at limits, and it is most advisable that buyers who are at liberty to enter into transactions should do so without delay, or they will, in all probability, have to pay much higher prices before long. It is very satisfactory to find that as the year is drawing to a close commercial affairs are assuming a more pleasing aspect, and business is becoming more lively, so that we may look forward to the new year inaugurating a period of much more activity and vigour, not only in the Metal Market, but in trade generally, and that the depression which has for so long a time impended over the commerce of the country will be forgotten in the prosperity which we trust will attend it, and which it is to be hoped will continue for a long season.

COPPER.—The market for this metal has assumed a rather brighter appearance, and prices have become decidedly firmer. This arises partly from the lighter shipments which have occurred from Chili, and partly also from an improved demand. Chili bars have advanced to 69*l.*, and the best brands to 70*l.*; and English tough cake has been sold at 74*l.* Wallarroo is now quoted 78*l.* 10s. to 79*l.*

IRON.—In Staffordshire the accounts from the works are satisfactory, the orders coming in are moderately good, and the greater part of the works are working as nearly full time as is usual, except when there is an accumulation of orders, which is not at present the case. There seems now a good prospect of getting fairly through the winter. In Welsh, at the principal works employment has become regular, and there are indications that the improvement which has set in is likely to be permanent. For the Russian markets the season has now closed, and there remain on the books of makers uncompleted orders for a considerable amount, which it is expected will be delivered in the spring of next year. Advices from the United States continue tolerably favourable, but the exports just at present are rather smaller than usual. On continental account there is a moderate business doing; last month the exports reached 12,118 tons, which is an increase on the corresponding month of last year. Home contracts are now more sought after, for with the close of the Russian season it will be necessary to secure other markets to keep the works going regularly. In Swedish the demand is rather quite at present, prices are, however, tolerably firm. In Scotch pig-iron a limited business only has been done during the week, and though at one time the price rose to 53s. 6d. cash, it again declined to 53s. 3d. cash, at which it remains.

LEAD is not now so much enquired for, and consequently only a moderate business has been done; prices, however, have not undergone any change.

TIN.—On Monday the smelters of English announced an advance of 2*l.* per ton, making present prices 100*l.* for blocks, 101*l.* for bars, and 103*l.* for refined, at which prices, however, orders are not readily taken. In Straits the market has now asumed a very buoyant appearance, and a considerable business has been done at advanced prices; at the commencement of the week transactions occurred at 97*l.* cash, and 97*l.* 10s. for arrival, prices then advanced to 97*l.* 10s. cash, and afterwards to 98*l.* cash, and in consequence of advices from Singapore of a considerable advance there holders demanded higher rates, and a further advance took place to 99*l.* cash, and 100*l.* for arrival, at which a large business was done. Holders, however, still look upward, and they are now asking 100*l.* cash, and there seems every reason to anticipate that the market will even still go higher. Banca has been sold on the spot at 99*l.*, is now quoted 102*l.*

SPELTER.—A further slight improvement has taken place, and a better business has been done, at 20*l.* 10s. for parcels on the spot, and at 20*l.* 12s. 6d. to 20*l.* 15s. for forward delivery.

TIN-PLATES.—Employment at the works is tolerably good, but prices low, consequent upon the increasing competition in the trade.

STEEL.—Foreign is in rather better request.

QUICKSILVER in only moderate demand.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (Oct. 23) write—On its becoming known early in the week that the telegraphic advices from Chili announced shipments for the fortnight ending Sept. 16 of only 45 tons bars and 270 tons of fine copper in ores and regulus, buyers came forward at last week's quotations for large quantities. Holders, however, were not willing, as a rule, to meet the market, excepting at a considerable rise, and, therefore, business has been restricted to the most pressing demands. Importers of Chili produce are very firm, but consumers continue to be of opinion that they will be able, by waiting a little, to secure their requirements at rates as low, or even lower, than any yet reached. We report sales of 680 tons of bars at from 67*l.* 10s. to 70*l.* per ton cash; 200 tons Urmenita ingots at from 72*l.* to 73*l.* 10s., and 200 tons Lota ingots at from 70*l.* to 72*l.*; also a cargo of ore and regulus, and a parcel of 400 tons regulus at 14s., and yesterday a further cargo of ore at 14s. 1½d. The demand for manufactured has been better this week than for some time past, and considerable transactions have taken place at our quotations, as well for Indian as other sorts. In fine foreign and English raw copper there is no especial business to report; transactions have been limited at about our quotations.

THE IRON TRADE.—There is more business being done this week. Iron sympathises with tin. The market here for rails is undoubtedly better, prices for railway iron are hardening, and although we cannot say that any actual advance has been paid, the Middlesborough and South Welsh houses hold rails firmly, and evince no anxiety to enter large orders for rails on their books. This looks well, and augurs favourably for a steady progress in the trade. In bar-iron there is more doing, both for India and China, and it is fair to presume that Spain under the new regime will become a good steady customer to this country. The French, owing to the facilities for shipment which their southern ports give them, have up to this time had the bulk of the Spanish orders for iron. This remark applies more particularly to all kinds of castings. The drawback allowed by the Imperial Government upon castings, &c., exported is large, and has presented advantages to the French ironfounders which enabled them to cut us out of the Spanish market. However, protection falls with the Bourbon dynasty, and our founders will now have a better chance with Spain. The best kinds of Staffordshire bars are in fair demand, and likely to continue so. One or two good orders have been given out this week to a leading North Staffordshire house for bars and angles. There is more activity at the shipbuilding yards on the Thames and the Clyde, but the return to general prosperity in iron shipbuilding after the long depression must of necessity be gradual. The demand for hoops is good at all the works in North and South Staffordshire, and the leading makers at both ends of the county are fairly off for orders.

— S. GRIFFITHS, Metal Broker, Old Broad-street, London.

The MINING SHARE MARKET opened very briskly this week upon another advance of 2*l.* per ton in tin, and a large amount of general business has been transacted in Wheal Chiverton, Wheal Kitty (St. Agnes), Great Wheal Vor, Great Laxey, West Chiverton, Prince of Wales, Drake Walls, Marke Valley, East Grenville, Providence Mines, West Frances, Tincroft, Wheal Grenville, Great Retallack, East Caradon, Chiverton Moor, Chontales, Don Pedro, and other shares. The standard for copper ore has advanced 2*l.* per ton this week. West Chiverton, 61 to 62; the cross-cut towards the 120 is still in the capels of the lode. Wheal Chiverton shares have been very largely dealt in, and on Monday rose to 7⅛, 8, buyers; afterwards they began to decline, and on a rumour circulated on the market that the new discovery was not in the sett, shares were knocked down to 3¾, 4¼; and they leave off 4⅛ to 4⅜. In reference to the report—evidently circulated for market operations—that the new discovery was *out of the sett*, we at once wrote to the purser respecting it, and the following is his telegraphic reply:—"The report you refer to is incorrect, the trial shaft and all the drivages are in the Chiverton sett." Chiverton Moor have been in better demand, at 6½ to 7. Chontales Gold dealt in, at 2⅜ to 2⅞. East Caradon, 4¼ to 5; Bedford United, 1⅞ to 2⅛; Bedford Consols, ⅛ to ¼; Carn Brea, 17¼ to 20; Cook's Kitchen, 11¼ to 12.

Prince of Wales, 37s. 6d. to 40s.; no change in bottom levels; the new south lode in the 45 has improved to 15*l.* per fm.; in the cross-cut towards this lode, in the 55, more water is coming out, and a branch of capel, similar to one met with between the two lodes in the level above, has been intersected. West Prince of Wales, 8s. to 9s. East Wheal Grenville dropped to 3⅛, 3¾, and after a good deal of fluctuation leave off 3⅞, 4⅛. Wheal Grenville shares have been firm, at 1⅝ to 1¾. West Frances, 30 to 32½; at the meeting, held on Oct. 15, the accounts showed a profit on three months' working of 256*l.* 2s. 4d., and a balance carried forward of 1*l.* 14s. 8d.; the 120 has been driven 18 fms. west of engine-shaft, and is within 4 fms. of a winze sunk 5 fms. under the 108, where the lode is worth 50*l.* per fm.; the 108 is worth 12*l.* per fm.; the 95 west, 40*l.* per fm.: the rise over this level, 25*l.* per fm.; the 85 west, 12*l.* per fm. Drake Walls have advanced to 17s., 19s.; West Drake Walls, 9s. to 10s. Wicklow Copper, 12 to 12½; a dividend of 5s. per share (4250*l.*) has been declared for the six months, the profit during that time having been 4671*l.* 6s. 11d. East Carn Brea, ⅜ to ½; East Lovell, 7½ to 8½; Frank Mills have advanced to 3½, 4; Frontino and Bolivia, 14s. to 16s.; Great Laxey, 19 to 20; Great Retallack, 2⅞ to 3⅛; Great Vor, 12½ to 13; Herodsfoot, 42½ to 45; Marke Valley, 8½ to 9; New Lovell, 17s. 6d. to 20s.; North Crofty, 1⅜ to 1⅝; North Retallack, 3 to 3¼; North Roskear, 11 to 12. North Treskerby, ⅜ to ½; Providence Mines, 25 to 27; Redmoor, 2s. 6d. to 3s. 6d.; South Condurrow, 15s. to 20s.; South Herodsfoot, ⅞ to 1; Tincroft, 14½ to 15½; West Basset, 15s. to 20s.; West Caradon, 4 to 5; West Great Work, 2½ to 3; West Seton, 160 to 165; Wheal Basset, 65 to 70. Wheal Crebor shares have advanced to 9s., 11s. Wheal Kitty (St. Agnes) shares have advanced to 3½, 4. Wheal Margaret, 5 to 7; Wheal Mary Ann, 17 to 18; Wheal Seton, 47½ to 52½; Wheal Trelawny, 8 to 9. Wheal Uny, 2¾ to 3¼; the lode in the 140 east continues to pass through a fine run of tin, worth 40*l.* to 50*l.* per fathom, and from the improved prospects of the mine 25 tons of tin per month will be returned, which will leave a good profit. On Oct. 20, 12½ tons were sold, at 56*l.* 10s. per ton. Penhalls, 3½ to 3¾; at the meeting, on October 20, the profit on the quarter ending August was 344*l.*, and the agents calculate on returning 40 tons of tin for the coming quarter, at a profit of 600*l.* Park Mine has commenced raising ore from the new south vein, and a parcel of ore will be sold next month.

From West Chiverton the following telegram has been received this evening:—"Touched the main lode in the 120, water hot, good lead and blende, as far as seen looking well."

The business in the Mining Market on the Stock Exchange has been very active during the past week, and considerable fluctuations have taken place. Don Pedro, Rossa Grande, and Port Phillip shares have been in good demand at advanced quotations. The last return from Don Pedro is viewed as highly favourable, showing a profit of 3900*l.* for the month, which has been made entirely from the ordinary workings, and irrespective of any vein-stuff. The directors have recommended a dividend for the quarter ending September of 3s. per share, payable next month, and carrying forward 10,000*l.* for the quarter ending December. St. John del Rey shares close flat, the loss for the month of August being over 2000*l.* Frontino and Bolivia and Yudanamutana shares are also flatter. The following are the closing quotations:—St. John del Rey, 17 to 18; Don Pedro, 2¾ to 3 prem.; Anglo-Brazilian, ⅛ dis. to par; Pestarena, 1½ to 1¾ dis.; Chontales, 2⅝ to 2¾; Rossa Grande, ½ to ⅝ prem.; Anglo-Italian, par to ¼ prem.; United Mexican, 1⅞ to 2⅛; Frontino and Bolivia, ⅝ to ¾; Port Phillip, 1½ to 1¾; Central American, ⅛ dis. to ⅛ prem.; Sao Vicente, par to ¼ prem.; General Brazilian, par to ⅛ prem.; Yudanamutana, 1¾ to 2⅛; Nerbudda Coal, 2½ to 2 dis.; Vancouver Coal, 3 to 3½ prem. Those of British description have likewise been animated, especially Chiverton shares, which on the report that the lode in the new Trial shaft was worth 2½ tons per fathom, advanced to 8, but close weak at 4 to 4¼; Chiverton Moor, 6½ to 6¾; West Chiverton, 60 to 62; Prince of Wales, 37s. to 38s.; Drake Walls, 15s. to 17s.; East Wheal Grenville, 3¾ to 4; Caldbeck Fells, 11s. to 12s. Glan Alun, 12s. 6d. to 13s. 6d.; the water is out of this mine, and the works are being prosecuted in a most satisfactory manner. From Rhosesmor the reports are of a very encouraging nature; they have cut into some good lead ground, and the prospects of the mine generally are reassuring. The lode in the 70 west is worth 6 tons per fathom. The work is being pushed on at the various points of interest with as much speed as possible.

IRISH MINE SHARE MARKET.—The election excitement is daily increasing in fervour, and making itself seriously felt on our Stock Exchange, more particularly in the Mining Share Market, in which the most enterprising men are, perhaps, some of the most conspicuous in politics. Until the elections are over a return to quiet business habits cannot be expected; therefore, the interval might be taken advantage of by those who do not permit politics to interfere with their financial operations, and who would now be able to secure shares in *bona fide* undertakings, which at the present prices offer great inducement. The depressing effect of the cause indicated has shown itself prominently in Mining Company of Ireland and Wicklow Copper Mining Company shares. The former, which about the 9th inst. were freely taken at 15*l.* 12s. 6d., have, for no other reason than general depression of the market, gone down to 14*l.* 10s. (7*l.* paid), at which figure they have last been sold for the 15th proximo. Wicklow Copper, which appeared firm at 12*l.* 10s. on the 16th inst., suffered some neglect also, pending the issue of the directors' half-yearly report, and have consequently gradually fallen off in market value to 12*l.* (2*l.* 10s. paid), and appear somewhat flat at this quotation. General Mining Company for Ireland shares have not been dealt in during the last fortnight, and the same may be said of Killaloe Slate Quarry shares since the 12th inst., when several dealings took place at 17s. 6d., 17s. 9d., and finally at 18s. (1*l.* paid). Connorree Mining Company shares have recently been done at 4s. per share, with more shares remaining procurable. The shares of the Arklow Chemical Works were favoured with increased attention on the part of buyers, who have readily purchased them at 19s. 6d. (1*l.* paid).

The shareholders of the Wicklow Copper Mining Company will hold a half-yearly general meeting this day. Details of their proceedings will appear in next week's Journal. Extracts from the reports by the board and the managing director will be found in another column. The directors recommend a dividend for the last account half-year at the rate of 20 per cent. per annum, or 5s. per share.

This week's railway traffic returns, compared with the same period of last year, show an increase of 241*l.* on the Dublin, Wicklow, and Wexford (Dublin and Kingstown included), and of 200*l.* on the Waterford and Limerick line.

Upwards of 30,000*l.* worth of flax was destroyed by fire on Monday last in the extensive flax stores of the enterprising firm of Messrs. Dunbar, M'Masters, and Co., proprietors of the Gilford Spinning Mills, one of the large establishments of this kind in the North. The origin of the fire was the accidental ignition of a lucifer match. The loss is reported to be fully covered by insurance.

LA LUZ SILVER MINING COMPANY, to the formation of which reference was made in last week's Journal, has been very well received by the public; and a correspondent well acquainted with the district writes that the prospects of the undertaking are rather extraordinary, owing to the fact that the mine is already found to be a rich one, requiring no expenditure, while the ores now in sight will more than repay. The vein is alleged to be in ore for 9 varas (25 feet) wide, and the ores of the best class known in Mexico both for facility of reduction and durability.

The MEXICAN RAILWAY COMPANY has issued a prospectus for placing 560,000*l.* First Mortgage Eight per Cent. Bonds at 85. The company was formed in 1864, for the purpose of taking over and completing certain railways then in course of construction between the city of Mexico and the port of Vera Cruz. Of the entire main line—261 miles—a length of 47 miles from Vera Cruz to Paso del Macho was opened in that year, and a further length of 86 miles from Mexico to Apixaco in January, 1867. A branch line of 29 miles from Apixaco to the city of Puebla is well advanced towards completion. The bonds will be termed "Class A Mortgage Bonds." They will constitute a first charge upon the net traffic receipts of the line from Mexico to Puebla, and will be redeemable at par by equal half-yearly drawings, extending over a period of 30 years from the date of issue. The prospectus will be found in another column.

The BRAZILIAN STREET RAILWAY COMPANY, with a capital of 100,000*l.*, in shares of 2*l.* each, has been formed, for the purpose of purchasing a completed and opened line of railway in the City of Pernambuco, Brazil, earning at the present time a profit of upwards of 10 per cent. per annum, and which is now known as the Recife and Apipucos Street Railway. The railway commences in the heart of the City of Pernambuco, and goes through the most popular suburbs of that city for a distance of six miles, and is worked by locomotive engines. It has been constructed along the high road, under a law of the Provincial Government, by which, in addition to this privilege, all competition is prohibited for a period of twenty years, from Oct. 1, 1867, being the date of the final opening of the line. The directors are gentlemen (English and Brazilian) intimately connected with Brazilian business.

The BANGOR SLATE SUPPLY COMPANY, with a capital of 50,000*l.*, in shares of 5*l.* each, has been formed for the purpose of acting as factor between the producers and consumers of slate. The advantage to the producer will be that he will secure a sale monthly for his entire make, instead of being hampered with certain sizes, and unable to meet the demand for others, whilst the advantage to the consumer will be that, owing to the concentration of the small, and consequently unsaleable, stocks of many makers in one place, the execution of orders will be greatly facilitated. The company has secured over 3 acres of freehold land, in an admirable position for a depôt, at little more than one-half the price that similar land in the same locality has recently realised at auction, and the vendor has agreed, moreover, to accept the whole amount in shares of the company. It is estimated that there will be a minimum profit of 10 per cent. upon the monthly sales. With regard to the nature of the business in which the company will be engaged, it is mentioned that the payment for slates is by approved bills at three months, or a discount of 2½ per cent. for cash; and that a banker in Wales, who discounts very extensively the bills for the quarry proprietors, states that such is the regularity of their payments, that out of hundreds of thousands of bills discounted, he has not seen a returned bill given for slates pass through the bank. The enterprise is more fully referred to in another column.

At the Truro Ticketing, on Thursday, 3156 tons of ore were sold, realising 13,490*l.* 15s. The particulars of the sale were:—Average standard, 104*l.* 6s.; average produce, 6¾; average price per ton, 4*l.* 5s. 6d.; quantity of fine copper, 212 tons 11 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Sept. 17	3522	£104 19 0	6⅜	£3 18 0	12s. 4d.	£61 11 0
„ 24	2236	98 7 0	7¼	4 6 6	12 0	60 2 0
Oct. 1	2535	103 2 0	6½	3 13 0	11 9	58 15 0
„ 8	1762	103 6 0	6⅛	3 11 6	11 8½	58 12 0
„ 22	3156	104 6 0	6¾	4 5 6	12 8½	63 10 0

Compared with the last sale, the advance has been in the standard 2*l.*, and in the price per ton of ore about 2s. 8d. Compared with the corresponding sale of last month, the advance has been in the standard 4*l.*, and in the price per ton of ore about 5s. 6d.

At the Swansea Ticketing, on Tuesday, 2015 tons of ore were sold, realising 19,354*l.* 9s. The particulars of the sale were—Average standard for 9 per cent. produce, 91*l.* 17s.; average produce, 13⅞; average price per ton, 9*l.* 12s. 1d.; quantity of fine copper, 279 tons 12 cwts. The following are the particulars of the sales during the past month:—

Date.	Tons.	Standard.	Produce.	Price per ton.	Per unit.	Ore copper.
Sept. 22	1682	£90 0 6	16¾	£11 8 2	13s. 7½d.	£68 1 6
Oct. 20	2015	91 17 0	13⅞	9 12 1	13 11½	69 6 0

Compared with the last sale, which was also the corresponding sale of last month, the advance has been in the standard 1*l.* 16s. 6d., and in the price per ton of ore about 5s. 3d.

THE TIN STANDARDS.—The Standards of Tin Ore and prices of Metal were advanced on Monday, and are now as follows—Ore: Common, 90s.; superior common, 91s.; fine, 92s.; and superior fine, 93s. Metal: Common, 100s.; and refined, 103s.

At the Bronfloyd United Mining Company quarterly meeting, held at the offices of the company, 32, Moorgate-street, on Tuesday (Mr. Henry Hutton in the chair), the accounts showed a credit balance of 1300*l.* 18s. 7d. A dividend of 300*l.* (6s. per share) was declared. A highly satisfactory report was read from the agent (Capt. Kemp), which stated that the winze from the 62 to the 73 fm. levels was down about 1½ fm., and was, for the size of the winze, worth upwards of 3 tons of lead ore per fm. in depth. The reserves were estimated at 1920 tons of lead ore, or 40 tons per month for four years to come. A new tramway incline has been laid down the hill from the head of the new shaft direct to the floors, and is now completed. A great reduction is henceforward expected to result in drawing charges, and still greater dividends to the members.

At Cook's Kitchen Mine meeting, on Oct. 14, the accounts showed a credit balance of 856*l.* 10s. 10d.; and a dividend of 612*l.* 10s. (5s. per share) was declared. The report is among the Mining Correspondence.

At West Wheal Frances meeting, on Oct. 15, the accounts for the three months ending July showed a credit balance of 14s. 8d. The profit on the three months' working was 256*l.* 2s. 4d., so that the debit balance at the last meeting was cleared off. Capts. Thomas, Craze, and Rabling reported upon the various points of operation. Messrs. Hicheus and Richards were appointed surgeons to the mine in place of the late Mr. Vincent.

At the Snaefell Mining Company meeting, on Oct. 15 (Mr. G. W. Dumbell in the chair), the accounts showed a debit balance of 91*l.* 7s. 3d. The directors propose to apportion the 9457 shares held in reserve among the present holders of the 20,543 shares *pro rata* at a certain fixed price below par, any shares not accepted being again divided in the same way. The Chairman and Captain Rowe expressed most satisfactory opinions as to the present state and hopeful prospects of the mine. Upon the meeting being made special, to consider the placing of the shares, the Chairman stated that he held 1506 shares at present, but his opinion was so decidedly in favour of the mine that he pledged himself to take the shares that would come to his lot. It was ultimately determined to fix the value of the shares at 12s. each, the amount to be paid by four equal instalments, due on Nov. 15, Feb. 15, June 15, and Oct. 15, 1869. By this means a capital of 5674*l.* 4s. would be raised, and before that amount is exhausted the mine will either be a positive failure or a positive success. Should the improved

position of the mine render the whole of the calls unnecessary they will be allowed to remain in abeyance, but the future liability on the shares to the extent of the unpaid calls will continue. Some excellent and promising samples of ore were on the table at the meeting for the inspection of the shareholders.

At Penhalls Mine quarterly general meeting, on Tuesday (Mr. W. Goslett in the chair), the accounts showed a profit on the quarter of 345*l.* 3s. 10d., and a credit balance of 200*l.* 9s. 11d. A very satisfactory report from the agents was read, which, with details of the meeting, will be found elsewhere.

At Great South Chiverton general meeting, on Thursday (Mr. W. Hall in the chair), the statement of accounts showed debit balance of 125*l.* 12s. 9d. A call of 2s. 6d. per share was made. The agents report that the Chiverton lode, on which the recent discovery has been made, runs through the Great South Chiverton sett. The report, together with full details of the meeting, will be found in another column.

At West Wheal Tolgus meeting, on Oct. 16, the accounts for the four months ending August showed a debit balance of 738*l.* 16s. 4d. The loss on the four months' working was 903*l.* 18. 5d. A call of 1*l.* 10s. per share was made. Captains J. Jewell, W. Gribble, and J. Jewell, jun., reported upon the various points of operation. The prospects of the mine are rather better than at the last meeting, and the 95, east and west of Taylor's engine-shaft, has continued productive throughout. The ore sold from the 30 fms. opened in that level has averaged 27*l.* per fm.—eastern end now worth 27*l.*, and western 30*l.* to 40*l.* per fm. If the lode proves as good at the 105, now sinking for, the mine will pay profits, notwithstanding the low price of copper.

At East Wheal Russell quarterly general meeting, yesterday (Mr. H. Milford in the chair), the accounts, made up to the end of August, showed a balance of assets over liabilities of 47*l.* 9d. 1d. A call of 5*s.* per share was made. It was resolved that the workings in the present part of the sett be continued for one month, and that operations be at once commenced on the north and middle lodes at the Tunnel level, were the prospects appear to be exceedingly favourable, and the workings can be prosecuted at a small cost. The committee were re-elected, and a special general meeting called for Dec. 4, to receive the report on the operations authorised. The parcel of ore sold on Thursday realised 263*l.* 17*s.*

The British Slate Company held a meeting yesterday, "to consider and devise the best and most efficient means of raising the absolutely requisite funds for providing the necessary steam power to work the quarries, as referred to in the directors' report of September last; and to liquidate all the remaining liabilities of the company, and to pass such resolutions as may be necessary for carrying the same into effect."

The directors of the Vancouver Coal Mining Company recommend the payment of a dividend at the rate of 20 per cent. per annum, and the addition of 3000*l.* to the reserve.

At the Don Pedro North del Rey Gold Mining Company extraordinary meeting, to be held on Nov. 24, the directors will propose the payment of 3s. per share, being for the three months ending Sept. 30, and at the rate of upwards of 85 per cent. per annum, the sum of 6357*l.*, and the profit for September, being carried forward for the quarter ending Dec. 31.

At the Chontales Gold and Silver Mining Company meeting, to be held on Thursday next, the directors' report will state that through Mr. Belt's energy and judgment the company's affairs have been much ameliorated. The additional funds raised by debenture have enabled the directors to meet all engagements. The general prospects of the company are most encouraging. Mr. Belt estimates that the returns will meet the mine cost by March, 1869, and more than doubly the mine cost by the following August. The maximum monthly cost is put down at 3500*l.* The expenditure for the year ending June 30 (including 2400*l.* directors' fees, and other London expenses) amounted to 44,248*l.*, and the gold sold realised 62366*l.* 8s. 7d.

The Bank of England return for the week ending on Wednesday showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 232,895*l.*, which is represented by a corresponding decrease in the coin and bullion on the other side of the account. In the BANKING DEPARTMENT there is shown a decrease in the "public deposits" of 287,831*l.*, and in the "seven day and other bills" of 27,982*l.*, together 315,813*l.*, an increase in the "public deposits" of 174,373*l.*, and in the "rest" of 5905*l.*; together 180,278*l.*=135,535*l.*, which, added to 59,416*l.*, the increase in the "coin and bullion" on the other side of the account, shows a total decrease in the reserve of 194,951*l.*

Creditors of the Turke Quarries Slate and Slab Company (Limited) are required to send the particulars of their claims to Messrs. James Solomon and Lewis H. Evans, the liquidators, by Nov. 17.

COAL MARKET.—The fresh arrivals this week number 163 ships. All descriptions of coal have been in steady demand, and we quote an advance in prices of from 3d. to 6d. per ton. Hetton Wallsend, 19s. 6d.; Haswell Wallsend, 18s. 9d.; Hartlepool, 18s. 3d.; Edon Main, 17s.; Kelloe Wallsend, 17s, 6d.; Tunstall Wallsend, 16s. 6d.; Wharncliffe, 16s. 6d.; West Hartley, 16s. 6d.; Hastings Hartley, 16s. 6d.—Unsold, 9 cargoes: 30 ships at sea.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Higginson, Liverpool, we learn that the quantity of coal exported in Sept. was 884,096 tons, against 978,586 tons in the corresponding month of 1867, showing a decrease of 94,490 tons. The particulars are—From the Northern Ports, 427,777 tons; Yorkshire, 31,475 tons; London, 4565 tons; Liverpool, 56,360 tons; Severn Ports, 266,900 tons; and Scotch Ports, 97,019 tons. The increase was—Scotch Ports, 21,157 tons. The decrease—Northern Ports, 76,983 tons; Yorkshire, 10,683 London, 1768 tons; Liverpool, 8113 tons; Severn Ports, 18,100 tons. Total, Jan. to Sept., 7,658,975 tons; corresponding month last year, 7,295,235 tons: showing an increase of 363,740 tons.

LEAD AND SILVER MINES.

The total quantity of lead ore raised and sold in the United Kingdom during 1867 and silver obtained was, according to the returns of Mr. R. HUNT—lead ore, 93,432 tons 1 cwt., of the value of 1,158,066*l.*; lead, 68,440 tons 14 cwts., of the value of 1,337,509*l.*; and silver, 805,394 ozs., of the value of 215,400*l.* The average price realised for the lead ore sold at the Holywell sales during the year was 12*l.* 17s. 6d. The subjoined table shows the localities whence the above ore and metal was derived, and the number of mines in each county:—

Counties.	No. of mines.	Lead ore.	Lead.	Silver.
ENGLAND—Cornwall	18	..Tons 8,644 19	..Tons 6,480 11	..Ozs. 314,326
Devonshire	4	803 4	526 12	13,719
Somersetshire	3	884 0	531 0	1,700
Derbyshire	40	4,916 15	3,873 0	1,000
Staffordshire	1	83 1	62 5	—
Lancashire	1	690 0	489 10	2,060
Shropshire	8	4,506 0	3,507 14	—
Yorkshire	48	7,539 4	5,242 18	3,000
Cumberland	49	5,682 14	4,213 9	31,022
Westmoreland	5	2,418 7	1,593 9	25,142
Durham & Northumber.	25	22,574 2	16,119 6	77,678
WALES—Cardiganshire	39	7,838 18	5,866 6	63,113
Carmarthenshire	2	821 18	617 0	3,595
Pembrokeshire	1	282 0	211 0	2,175
Brecknockshire	1	6 0	4 0	—
Merionethshire	5	25 0	9 0	—
Montgomeryshire	14	3,588 0	2,727 10	14,520
Denbighshire	14	8,987 10	6,689 10	33,082
Flintshire	25	4,201 10	3,207 0	29,700
Carnarvonshire	14	303 5	219 14	824
ISLE OF MAN	3	3,799 0	2,834 0	165,170
IRELAND	4	1,882 12	1,308 0	12,140
SCOTLAND	6	2,954 2	2,107 19	11,428
Total of United Kingdom..	340	93,432 1	68,440 14	805,394

THE BRITISH ZINC TRADE.

The total quantity of zinc ores of which returns have been obtained by Mr. R. HUNT for his official statistics (and which consisted principally of sulphide of zinc or black jack) from British mines in 1867 was 13,489 tons 8 cwts., the value of this ore being estimated at about 41,340*l.* 11s. 11d., the produce of metallic zinc being about 3750 tons 9 cwts., which quantity, computed at 21*l.* 5s. per ton, the average market price of zinc for the year, would give 79,693*l.* 10s. The subjoined table shows the localities whence the supply was derived:—

	Zinc ore.	Value.
ENGLAND—Cornwall ..... Tons	1,730 19 0	£ 4,217 18 0
Devonshire	97 0 0	242 0 0
Cumberland	559 4 1	1,663 15 0
Derbyshire	44 2 0	102 5 0
Shropshire	336 13 0	1,274 10 0
Staffordshire	79 7 0	238 1 0
WALES—Cardiganshire	222 13 0	483 10 6
Montgomeryshire	249 2 0	593 0 0
Denbighshire	2,375 0 0	9,524 12 0
Flintshire	2,301 10 0	5,200 5 0
ISLE OF MAN	5,361 15 3	17,371 10 5
IRELAND	132 2 0	429 5 0
Total	13,489 8 0	£41,340 11 11

SAO VICENTE.—The directors have received advices from the superintendent, dated Sept. 1. On his arrival at the mines on Aug. 17 he made it known that they were about to recommence operations, and offered work; some workpeople came on the following day, and, since then, others have been gradually following their example. His first care was put such hands as he had at his disposal to cut down timber, to dig pits, and to make other arrangements for erecting accommodations at the jacotinga formation. After seeing the above work in progress, he started for Congonhas to try to engage a few Englishmen for this company, and on the 19th succeeded in securing the services of two for one year. He has put a few hands to repair the "corrego" in the eastern section, to cut off a stream of water which is finding it way into the mine; to effectually remedy this, he thinks they will have to make a course to turn off the water from a part of the "corrego," which runs through some addle ground. They have not yet commenced to work on the jacotinga formation, as he thought it advisable to concentrate their force to the building of a house. He hoped, however, in the course of a week to commence operations on various points of the hill.

TO COAL AND IRONMASTERS, ROPE MAKERS, OIL MERCHANTS, AND OTHERS.—A GENTLEMAN of active business habits, and considerable commercial experience, with a first-class connection amongst COLLIERY OWNERS and IRONMASTERS, is open to UNDERTAKE AGENCIES for the SALE of IRON, IRONSTONE, and all kinds of articles used at COLLIERIES and IRONWORKS. Has represented a respectable firm for upwards of 20 years. Highest references and security, if required.
Address, "W. F.," Post Office, Bursiem.

PARTNERSHIP.—WANTED, ONE or MORE PARTNERS, to advance gradually, during eighteen months, £5000, to DEVELOPE an exceptionally RICH and PRODUCTIVE COAL MINE, now under able and experienced management. This sum, with £5000 already arranged, is demonstrated to yield a net annual return of at least £5000—reaching in 21 years, the term of the lease, £105,000 net profits.
A leading railway passes in close proximity to the mines, economising the cost of transit, and putting the coal in the large central markets at prices which command the contracts of the leading railway, steam-ship, and export buyers.
Provision will be made for early recouping the capital, which will carry a preference interest of 5 per cent. before distribution of profits. Thus, in a few years, reedeming the property to become the joint and unencumbered estate of the investors.
For perusal of specifications, plans, and particulars in detail, apply to H. AUGUSTUS GUY, professional auditor and partnership broker, Canning Chambers, 4, South John-street, Liverpool.

WANTED, a PERSON to KEEP COLLIERY WORKING ACCOUNTS, SURVEY, and KEEP the COLLIERY PLANS at a LARGE COLLIERY in the MIDLAND COUNTIES.
Apply, in writing, to "P. C.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

WANTED, ON LEASEHOLD, £2500, to be EMPLOYED in the MANUFACTURE of STONEWARE of superior quality and colour, for which there is great demand.
Apply to "J. N.," Cefn Mawr, Ruabon, North Wales.

TO PROPRIETORS OF MINES.—WANTED to SURVEY the WORKINGS, and ASSIST as UNDERVIEWER; or to KEEP UP the PLANS, and AUDIT ACCOUNTS.
Address, "Surveyor," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

TO CAPITALISTS.—A Gentleman now working MINERAL PROPERTY in NASSAU, PRUSSIA, wishing to extend his operations, is DESIROUS of SECURING a PARTNER, with a capital of from £2000 to £3000.
Address, by letter, to "P. B.," the Baltic, Threadneedle-street, E.C.

A CORNISH ENGINEER, who has had several years' experience both at home and abroad, in SUPERINTENDING the CONSTRUCTION and WORKING of all kinds of MINING MACHINERY, is OPEN to an ENGAGEMENT. Is a good draughtsman, and thoroughly understands gold crushing and amalgamating machinery. Good references.
Address, "W. D. H.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

ARTICLED PUPIL.—A MINING ENGINEER in SOUTH WALES is OPEN to TAKE a WELL-EDUCATED YOUTH. A premium expected.
Address, "Pupil," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

A GENTLEMAN, who has served an apprenticeship of four years to a MECHANICAL AND MINING ENGINEER; has seen many Mining and Smelting Works here and on the Continent; has been employed in Designing, Constructing, and Working large Dressing Works on the newest German principles; and has passed the Examinations and worked in the Laboratories of the School of Mines; DESIRES an ENGAGEMENT. Speaks German and Swedish.—Address, "W.," 14, Brighton-park, Clifton.

OFFER WANTED for TWENTY LUCY PHILLIPS SHARES; not less than £3 taken.
Address, "H. M.," 36, Northumberland-place, Westbourne-grove, Bayswater.

FOR SALE, THE FOLLOWING MINE SHARES:—5 Nangiles, 100 Great Caradon, 20 East Chiverton. Any reasonable offer will be accepted.
Apply, by letter, to "M.," 108, St. John-street-road, London, E.C.

FOR SALE (a bargain), TWENTY-EIGHT VOLUMES of the "MINING JOURNAL," from 1835 to 1864, neatly bound, and in thoroughly good condition.
Apply, by letter, to "A. B.," 29, Radnor-street, King's-road, Chelsea.

TO STEEL MANUFACTURERS.—OFFERS WANTED for about FIVE TONS of MINERS' SCRAP STEEL BORERS.
Apply to "Secretary," Minera Mining Company (Limited), near Wrexham.

BLAKE'S CRUSHER, NEW or SECONDHAND, WANTED; also, a STEAM ENGINE, and all the necessary connections for working the crusher.
Size, price, and full particulars to be addressed to "Quarryman," MINING JOURNAL Office, 26, Fleet-street, London.

SULPHUR MUNDIC FOR SALE.—ABOUT TWO HUNDRED TONS, averaging 48 per cent. of sulphur, delivered on board.
Apply to Capt. W. B. COLLOM, Calstock, Cornwall.

TURBINE ON SALE—DOUGLAS'S PATENT, quite new, price £100, cost £135 without connections.
Apply to the Keld Heads Mining Company, near Leyburn.

TO MINING ENGINEERS AND OTHERS.—TO BE SOLD, an excellent CONDENSING BEAM ENGINE, 17 in. cylinder, and BOILER, with CRUSHING APPARATUS.
Apply at the works of the HOLYWELL SPELTER AND CHEMICAL COMPANY (Limited), close to the Holywell Station.

IMPORTANT MINING PROPERTY FOR SALE IN RHENISH PRUSSIA.—A BLENDE MINE, giving 3 to 4 tons of blende per fathom; a COPPER MINE, averaging 14 per cent. of copper; and THREE LEAD MINES, with 65 per cent. of lead.
Apply for particulars, to O. J. YOUNGHUSBAND, Esq., Wiehl, Kreis Gummersbach, near Cologne, Prussia.

MERIONETHSHIRE.—A very promising NEW MINE TO BE DISPOSED OF forthwith, on reasonable terms, near a shipping port, and within about two miles of a railway station, containing a very rich lode, well defined, highly crystallised, and a good deposit of copper; plenty of water at hand, and a good back for levels.
For further particulars, apply to Mr. JOHN WILLIAMS, Grogan, Harlech, North Wales.

THE BANGOR SLATE SUPPLY COMPANY (LIMITED).
Incorporated under the Companies Acts, 1862 and 1867.
Capital £50,000, in 10,000 shares of £5 each, to be paid on allotment.
The LIST of SUBSCRIPTIONS will be CLOSED for London on the 24th October, and for the country on the 26th October, after which dates no further applications for shares will be received.
Prospectus, forms of application, and all other information can be obtained at the offices of the company, 133, Gresham House, Old Broad-street, London.
By order, JAMES DAVIS, Secretary.

EAST PLYNLIMMON LEAD MINING COMPANY (LIMITED).
To be incorporated under the Companies Acts, 1862 and 1867, with Limited Liability.
In 350 shares of £20 each, £5 payable on application, £3 in three months, £5 in six months, and the rest, if required, at intervals of not less than three months, and not more than £2 at a time.

The object of this company is to purchase the lease and to carry on mining operations in the "Blaengwe" grant, situate in Montgomeryshire, near the boundary of Cardiganshire, and in the midst of a rich mining district.
This property adjoins the successful Plynlimmon Mine, and on the same lodes.
The Plynlimmon Mine was commenced from surface only about two years ago, when it was purchased for £5000, and a company then formed in 80 shares of £100 each, which are now valued at £300. They have sold about £6500 worth of lead ore, and continue to open out good courses of ore in several levels, already making a profit of about £200 per month, which will soon be considerably increased.
The adit level at Plynlimmon Mine has been driven 110 fms. in a lode worth, for the whole of that distance, an average of 1 ton of lead ore per fathom; the present end of the level being worth 3 tons per fathom, and is now within 90 fms. of East Plynlimmon boundary.
Two cross-cuts can be driven in the East Plynlimmon grant, which would cut this and another lode in about six to eight months, at 30 to 40 fms. deep, where levels can be driven east and west upon the lodes, and thus probably lay open expeditiously and cheaply a valuable mine.
Another important fact is that the Plynlimmon lode has been discovered at the eastern boundary of the East Plynlimmon grant (on the opposite side from Plynlimmon Mine), where it shows good lead ore, and is of an excellent character, and from this point an adit level can be driven westward on the course of the lode, and quickly gain 40 fms. of backs. This discovery is most important, as it proves the Plynlimmon lode to be an ore-bearing one for a great length, and at the farthest point yet opened upon in this direction.
About two years ago the Van lead lode was cut at that mine (about nine miles from East Plynlimmon), since which they have sold upwards of £20,000 worth of ore, out of which they have returned to the proprietors the whole of the capital laid out with a handsome profit, and are making at the rate of £8000 per annum, with ore ground already discovered estimated to give that rate of profit at least for ten years to come.
In 1863 the West Chiverton Lead Mine was purchased for £30,000, since which they have divided £81,500, their present dividends being £6000 quarterly, or £24,000 per annum, with every prospect of a long continuance, and the market value is £180,000. Again, in 1863 the Great Laxey Lead Mine was purchased for £40,000, since which they have divided £131,250, their present rate of dividends being £7500 quarterly, or £30,000 per annum, and the market value is £255,000.
Full prospectuses, with the names of the directors, and reports, can be obtained from J. H. MURCHISON, Esq., 8, Austinfriars, London.

THE SAO VICENTE MINING COMPANY (LIMITED).—The Board of Directors of this company hereby give notice that they have this day MADE a CALL of TEN SHILLINGS PER SHARE on the shares in the capital of this company, payable at the Imperial Bank (Limited), No. 6, Lothbury, London, on or before Monday, the 23d day of November, 1868.
And further notice is hereby given, that interest at the rate of Five per Cent. per annum will be charged upon all sums remaining unpaid in respect of the said call after the 23d day of November, 1868.
By order of the Board,
FRED. W. SMITH, Secretary.
No. 35A, Moorgate-street, London, E.C., Oct. 19, 1868.

NOTICE is HEREBY GIVEN that a SPECIAL GENERAL MEETING of the shareholders in the PERUVIAN MINERAL COMPANY (LIMITED) will be HELD at the offices of the company, 25, Old Jewry, London, E.C., on WEDNESDAY, Nov. 4, at Two o'clock of the afternoon, to receive the directors' report on the present prospects of the company, and with reference to the raising of additional capital for the company's uses, consequential upon the late disastrous earthquake.
By order, JOHN JAMES HARRIS, Sec.
N.B.—Shareholders must produce their share warrants on attending the meeting.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 19	Dylife	43	£12 6 6	Adam Eyton.
	East Logylas	50	11 5 0	Pantho Lead Co.
	Glogfach	26	16 5 0	Adam Eyton.
	Cwmystwith	40	11 14 0	Sims, Willyams, & Co.
20	Foxdale	100	22 15 0	Panther Lead Co.
	Stiperstones	80	11 18 0	Sims, Williams, & Co.
22	Mid-Wales	20	11 3 0	Panther Lead Co.
23	Treweatha	38	23 15 0	Treffry's Trustees.

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Oct. 14	Stiperstones	30	£ 4 0 6	Baglilt Company.

BLACK TIN.

Date.	Mine.	Ts. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
Oct. 17	Wheal Kitty	8 6 3 14	£56 5 0	£ 469 6 8	—
	Penhalls	15 6 0 8	58 5 0	891 8 8	—
	Wheal Uny	12 7 3 19	56 10 10	700 17 9	—

COPPER ORES.

Sampled Sept. 30, and sold at Swansea Oct. 20.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Knockmahon	80	9	£6 1 6	Dylife	44	7	£4 10 6
ditto	84	8¾	5 18 0	ditto	29	7⅞	4 19 0
ditto	94	9½	6 9 0	ditto	50	5¼	3 11 6
ditto	72	8¼	5 10 6	ditto	63	6¾	4 4 6
ditto	127	10⅜	7 1 0	Ballycummisk	89	7⅜	4 8 6
ditto	98	9⅛	6 6 0	ditto	6	22⅛	15 0 0
ditto	2	7⅜	4 18 0	ditto	1	29⅛	19 0 0
ditto	1	8⅛	5 1 0	Lisbon Ore	39	24¼	16 5 6
Cuba	104	17¼	12 4 0	ditto	13	23⅜	16 5 6
ditto	103	17⅞	12 3 0	ditto	11	16	10 6 6
ditto	102	17¼	12 0 0	ditto	4	13	8 1 6
ditto	6	62¼	42 10 6	ditto	1	10⅜	5 15 0
ditto	102	17⅜	12 0 6	Copper Ore	2	15⅞	9 6 0
ditto	50	26⅜	17 18 6	New Cornwall	53	12¼	8 15 6
ditto	49	26¼	17 18 6	Azambugeira	11	30⅞	20 6 6
ditto	5	62¼	41 10 0	ditto	12	26¼	18 11 6
ditto	3	63⅜	42 7 6	ditto	1	17¼	11 14 0
Moonta	103	16¼	11 4 6	Slag	19	2⅞	1 0 6
ditto	102	16⅜	10 18 0	Australian	11	10¾	6 12 6
ditto	97	15¾	10 15 0	ditto	1	27⅛	17 9 6
ditto	95	14½	9 7 6	Chili Regulus	16	62⅛	43 2 6
Dylife	60	6¼	4 10 6				

TOTAL PRODUCE.

Knockmahon	558	£3513	6 0	Copper Ore	2	£	18 12 0
Cuba	524	7335	3 0	New Cornwall	53	465	1 6
Moonta	397	4201	7 0	Azambugeira	24	458	3 6
Dylife	246	1062	4 6	Slag	19	19	9 6
Ballycummisk	96	502	16 6	Australian Ore	12	93	7 0
Lisbon Ore	68	927	18 6	Chili Regulus	16	690	0 0

COMPANIES BY WHOM THE ORES WERE PURCHASED:—

Names.	Tons.	Amount.
Copper Miners Company	36	£ 389 4 0
Freeman and Co.	83	1397 13 6
Grenfell and Sons	184	1878 8 6
Sims, Willyams, and Co.	175½	2199 7 6
Vivian and Sons	310	3763 5 0
Williams, Foster, and Co.	219	3114 19 6
Mason and Elkington	491¼	3050 15 6
Charles Lambert	336	1461 2 0
Sweetland, Tuttle, and Co.	168½	1613 13 0
Landore Copper Company	11½	486 0 6
Total	2015	£19,354 9 0

Copper ores for sale at Swansea on Nov. 10.—Cuba (about) 630—Knockmahon 528—Berehaven 400—Cape 360—Dylife 77—Slag 73—Savoy Argentine Pyrites 46—Paramatta 20.—Total, 2134 tons.

TOTALS AND AVERAGES.

	21 cwts.	Produce.	Price.	Standard.
Whole sale	2015	13⅞	£ 9 12 1	£91 17 0

COPPER ORES.

Sampled Oct. 7, and sold at the Royal Hotel, Truro, Oct. 22.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols.	128	£4 15 6	Okel Tor	40	£6 6 0
ditto	123	4 12 6	East Caradon	80	3 14 6
ditto	115	5 0 0	ditto	61	4 15 6
ditto	114	4 15 6	ditto	44	1 12 0
ditto	112	2 16 0	Prince of Wales	44	6 17 6
ditto	108	4 14 0	ditto	41	4 6 0
ditto	105	5 1 0	ditto	38	6 4 6
ditto	103	4 17 6	Gawton	58	3 0 0
ditto	88	4 3 6	ditto	25	6 1 0
ditto	83	5 1 0	ditto	21	1 1 0
ditto	81	4 9 6	Bampfylde	40	3 1 6
ditto	80	3 17 6	ditto	27	14 3 6
ditto	77	3 6 6	ditto	20	1 17 6
ditto	67	1 18 0	Brook Wood	58	2 4 0
ditto	49	3 3 6	ditto	23	2 17 0
ditto	40	4 19 6	Hingston Down	63	2 11 6
ditto	20	12 17 0	Gonamena	48	5 17 6
ditto	18	5 15 6	ditto	15	1 15 6
Marke Valley	91	2 10 0	East Russell	44	2 18 6
ditto	87	2 13 6	ditto	17	7 19 0
ditto	80	5 3 0	Kelly Bray	30	1 18 0
ditto	65	7 3 6	ditto	20	4 19 6
ditto	62	4 11 6	Matthews's Ore	22	5 10 0
ditto	42	6 8 0	ditto	21	4 19 0
ditto	26	1 12 6	Cargoll	21	12 5 0
Okel Tor	100	1 8 6	South Dolcoath	15	3 17 0
ditto	73	3 1 0	Sortridge Consols	14	5 10 0
ditto	57	2 1 6	Belstone	12	12 0 6

TOTAL PRODUCE.

Devon Great Con.	1511	£6710	17 6	Gonamena	63	£	308 12 6
Marke Valley	453	1933	6 0	East Russell	61		263 17 0
Okel Tor	270	735	8 6	Kelly Bray	50		156 10 0
East Caradon	185	659	13 6	Matthews's Ore	43		224 19 0
Prince of Wales	123	715	7 0	Cargoll	21		257 5 0
Gawton	104	347	6 0	South Dolcoath	15		57 15 0
Bampfylde	87	543	4 6	Sortridge Consols	14		77 0 0
Brook Wood	81	193	3 0	Belstone	12		144 6 0
Hingston Down	63	162	4 6				

Average standard ..... £104 6 0 | Average produce 63¼
Average price per ton £4 5 6
Quantity of ore ..... 3156 tons | Quantity of fine copper .. 212 tons 11 cwts.
Amount of money £13,490 15 0
LAST SALE.—Average standard ..... £103 6 0—Average produce 6⅛
Standard of corresponding sale last month, £104 19 0—Produce, 6⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	455½	£2062 1 6
Freeman and Co.	200⅔	703 1 2
Grenfell and Sons	249	1357 1 6
Sims, Willyams, and Co.	327	1916 14 0
Williams, Foster, and Co.	608⅔	2700 10 5
Mason and Elkington	321⅙	1249 17 11
Copper Miners' Company	298½	1035 17 6
Charles Lambert	396⅛	1623 2 6
Sweetland, Tuttle, and Co.	299	842 8 6
Total	3156	£13,490 15 0

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday next.—Mines and Parcels.—South Caradon 522—Great North Downs 391—Clifford Amalgamated 257—West Wheal Damsel 228—Phœnix 219—Craddock Moor 63—Pennance 34—Tywarnhaile 17—West Great St. George 10.—Total, 1741 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week.—Mines and Parcels.—West Wheal Seton 557—Clifford Amalgamated 501—East Pool 152—South Wheal Crofty 140—South Wheal Frances 116—East Wheal Grenville 103—North Grambler 63—Falmouth and Sperries 34—Wheal Busy 25—Nangiles 13—Wheal Grenville 7—Pendarves United 6.—Total, 1717 tons.

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F. N. GISBORNE'S PATENT MECHANICAL BALANCE-WEIGHT SIGNALS FOR MINES, &c.

THESE SIGNALS supply a want long felt in giving INSTANT COMMUNICATION in MINES at SEVERAL PLACES at the SAME TIME without the aid of electricity, but by a single rod or chain; so that a degree of safety is ensured hitherto unknown.

The price is also very low, and the mechanism so simple that any ordinary mechanic could put it in order if out of adjustment.

The same patent, as applied to ships, has received the approval of the Chief Engineer, Chatham Dockyard (vide *Times*, Aug. 13, 1868).

SOLE AGENT FOR MINES:

MR. GEORGE B. JERRAM, ENGINEER, 5, GREAT QUEEN STREET, WESTMINSTER.

N.B.—Mr. JERRAM is now visiting the different mines with working models.

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt: it then forms an accumulating useful work of reference.

IRON ORE.—I will feel obliged if some of your correspondents would give the royalty paid for iron ore, and if it is usual to pay a dead rent, or minimum royalty, for such grants; also the price of ore containing 50 per cent. iron.—Z.

DON PEDRO NORTH DEL REY.—Will you allow me, through your valuable Journal, to ask what progress is being made in driving the adit level which is expected to drain the upper levels, and enable the agent to sink another winze, should the lode so improve that it may be worth the expense? I have looked at the reports as printed again and again, and expected to have seen that the bottom level was drained, but until last report I did not hear anything of the progress of this all-important point, when the agent says "progress is being made." There are miners who have recently returned to this country who can inform the shareholders more fully as to the probable success of the present attempt to drive the deep adit, and who may be able to tell us how many years it will probably take to reach the supposed dip, which is towards the hill. I hope that this letter will be the means of drawing forth some impartial opinion as to the merits and probable continuance of the mine, of which we know exceedingly little.—ONE INTERESTED.

THE MINES PURCHASE AND FINANCE COMPANY.—Will you kindly allow me space in the Journal to ask the directors of this company how the concern is going on, and when a dividend may be expected to be declared? The report issued by the board, prior to the general meeting held on March 19, informed the shareholders that the Baryta Quarry had been very productive, that a contract had been made with responsible parties to take the whole produce at a highly remunerative price, that there were then on the quarry 1300 tons paid for, which would give a profit of 1069*l.*, or 14 per cent. on the whole capital of the company, and the reason for their inability to declare a dividend at the meeting was the stormy weather along the coast, that had prevented the produce being delivered, and the cash received. Since that meeting seven months have elapsed, and those the finest successive months on records, so that a better time for sending off the produce could not be desired. What then, I ask, has prevented a dividend reaching the pockets of the shareholders ere this time? Surely, if the affairs were in that prosperous condition represented in the March report, some cash should have come into our possession months since.—A SHAREHOLDER.

SCALE FOR ADVERTISEMENTS.—To avoid the necessity of frequent application, we may state our charge for general advertisements is—for six lines and under, 4s.; per line afterwards, 8d. Average, twelve words per line.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, OCTOBER 24, 1868.

COLLIERS' SICK AND ACCIDENT FUNDS.

There is scarcely any body of working men so liable to accidents of a serious and fatal character who make less provision in anticipation of them than coal miners. Where, however, a fund can be established on a good basis, having for its object alone the relief of those who, by sickness or accident, are unable to follow their employment, and in no way connected with trade matters, it cannot be looked upon otherwise than as a valuable boon to the parties interested. Unfortunately, accidents which render men permanently incapable of working are by no means unfrequent in our collieries, and for those provision is seldom or never made, so that the sufferers, after having exhausted the sympathy of their comrades, have to settle down as confirmed paupers. With those facts in view, the Staveley Iron and Coal Company, who employ nearly 5000 persons, and, to their credit be it said, are ever desirous of forwarding any movement which can be of real benefit to all classes of their workpeople, initiated last year an Accident Fund of an original character. Aware that the first thing to be done in establishing almost any society is to raise a good fund, the company proposed to give 2000*l.*, in four yearly instalments of 500*l.* each, and the first was duly paid on Sept. 27, 1867. The report of the financial year has just been made, and it is gratifying to find that the society has been highly successful, and it is to be hoped that the example will not be lost, but that the other districts will follow it, and so secure a provision for the colliers when suffering from sickness or accident. From the report we find that the contributions received from the workmen to the Sick Fund for the year was 2254*l.* 17s. 2d.; and, owing to there having been a larger amount of sickness than usual, the payments amounted to no less than 2304*l.* 6s. 11d., a proof in itself of the large amount of suffering relieved. But it is to the Accident Fund we must look for an entirely new plan for relieving those who have been injured, permanently or otherwise. Unlike the system adopted by ordinary benefit societies, where all members are alike when in benefit, the Staveley Accident Fund gives compensation for the loss of a limb, or for permanent injury, according to the length of time which the person so injured has been a member of the fund. During the year the workmen paid to the fund 1314*l.* 16s. 2d., which, with the 500*l.* given by the company, amounted to 1814*l.* 16s. 2d., out of which there was paid for deaths and accidents 835*l.* 4s. 7d., so that with 33*l.* 4s. 6d. the second year commenced with a balance in hand of no less than 1012*l.* 16s. 1d., which has recently been further increased by the payment by the company of the second instalment of 500*l.*, making altogether 1512*l.* 16s. 1d. The mode of dispensing the fund will be seen from the following statement of the deaths and permanent injuries arising from accidents at the works, and the sums paid, or to be paid, in each instance:—

To a workman killed, crushed between a wagon and post	£10	0	0
" " "	20	0	0
" crushed by a fall of bind, killed "	20	0	0
" crushed in leg, and died	10	0	0
" arm taken off by a steam-crane	25	0	0
" struck in the eye by a piece of wood	20	0	0
" piece of wire lodging in his eye	15	0	0
" struck in eye with metal, totally blind	100	0	0
" crushed and killed by a fall of bind	44	0	0
" crushed and killed by a fall of coal	52	0	0

It will thus be seen that as much as 100*l.* has been paid to one of the members who had been permanently injured, and which would enable the sufferer, through his family, to go into some way of business, and so ensuring his future support without having recourse to parochial aid. This mode of relieving those who have been rendered permanently disabled is one which we consider is well worthy of the consideration of our colliery proprietors, and it is to be hoped that the Staveley example will be followed out in many other of our mining districts. One of the many advantages of such a fund is, that it affords a strong tie between the master and workmen, and gives the latter an interest in stopping at the place where he is so well cared for. At present we believe there are few districts where that good relationship between the employer and employed, which is alike a source of advantage to both, is to be found stronger than at Staveley. There, where no Union is tolerated but that of kindness and forbearance between the workmen and the officials, the workmen have become identified with the place, whilst the company have spent very many thousands of pounds. Amongst other things which the company have done towards promoting the interest of the families of their workpeople, it may be stated that on taking to the works they paid 530*l.* for schools. At a cost of several thousands of pounds they have provided a handsome workmen's hall, near the iron works, and where the men can have breakfast, dinner, or tea at a very moderate rate. Indeed, having ourselves not very long ago taken lunch there with the respected manager, we can speak in unqualified terms of the *cuisine*, and of the air of comfort and cleanliness which pervades the whole place. Such provisions as those, we think, cannot but form a strong cement for a union lasting and advantageous, and as such we believe they are appreciated by those who are the most deeply interested. Great credit, indeed, not only as regards the founding of the accident fund, but for the very many advantages which the Staveley workpeople enjoy over those in almost every other colliery district with which we are acquainted, is due to Mr. MARKHAM, the managing director, whose many works of usefulness in the locality will live long after the present generation has passed away. With regard to the works, which are amongst the most extensive in the kingdom, we shall on some future occasion give them a special notice.

IRONWORKERS' WAGES.

The ironworkers of North Staffordshire are yet making an effort to obtain an advance of wages. On Sept. 26 we showed that they had met, and had passed a resolution "to ask the ironmasters of the district for an advance of 1s. per ton for the puddlers, and 10 per cent. to the other branches of the trade." We stated that the resolution had not been succeeded by the giving of any formal notice, and that even if it had the masters were not in a position to concede the request. The state of trade then existing has not changed. Nevertheless, the men have again met, and have passed a resolution in which it was determined that a communication should be addressed to the Chairman of the North Staffordshire Coal and Ironmasters' Association, asking him to call an early meeting of the association, to consider the application of the men for an advance in wages to the extent above indicated. The publication of the decision at which the men have arrived was accompanied with an expression of an "earnest hope" on their part that, in the negociations with the employers, nothing would occur to interrupt the friendly relations now existing. On the part of the masters, we may state that, so far as they are concerned, nothing is likely to transpire by reason of which this hope shall not be realised. They, nevertheless, will be unable to concede the advance. They would be glad enough to give it, but to make the concession would not only be antagonistic to their own interests, but it would likewise interfere unfavourably with the prospects which are now before their men. It is true that a fair demand for bars is being experienced in North Staffordshire, but in plates there is very little doing, and that little is not likely for the present to increase. It is upon plates that a much larger profit is got, as a rule, than upon bars, and the demand for bars is not such as to warrant an advance in prices. If the current rates should be put up the consumption would instantly be checked, and instead of, as now, the men finding steady employment there would be a lamentable want of work.

We see it stated that some 14 puddlers have emigrated from Dudley to the United States of America. If this be so, the step which these men have taken is greatly to be regretted. No good puddler need now be out of work in Great Britain; and, though his wages are necessarily low at the present time, it will not be long before the demand for iron is so greatly improved that he will be able to obtain a remuneration which the masters would be as glad to give as he can be to receive. The *Mining Journal* has before cautioned ironworkers upon the delusiveness of the prospects which are held out in America, and we should have thought that the experience in this matter possessed by the active Unionist ironworkers in the Dudley district would have prevented a repetition of the mistake which, in the matter of emigration, the Staffordshire puddlers committed.

THE REPRESENTATION OF THE HARTLEPOOLS.

A gentleman is before the electors of the Hartlepools whose presence in the House of Commons would be of the greatest service to the coal and iron trades. We speak of Mr. THOMAS RICHARDSON. Himself the son of an ironmaster at Castle Eden and Hartlepool, he is now at the head of the first manufacturing firm in the iron trade ever established at Hartlepool, and he has been so for 20 years. The concern was originally known as the Hartlepool Iron Works Company, but its present trading designation is Messrs. THOMAS RICHARDSON and SONS. When it came into Mr. RICHARDSON'S hands it was only a small foundry, but it is now one of the leading engineering establishments in the Northern Counties. In it have been turned out hundreds of handsome and substantial locomotive and marine engines, the latter going, in not a few instances, to the Peninsular and Oriental Company. Very recently Mr. RICHARDSON has purchased the extensive rolling-mills at West Hartlepool, which proved so lamentably unsuccessful in the hands of Messrs. PILE, SPENCE, and Co. (Limited). He thus inverts the modern practice of turning private into joint-stock concerns; and as he has been successful in a marked degree in that enterprise, in respect of the Hartlepool Iron Works Company, so, it may be assumed, he will be equally fortunate in regard to PILE, SPENCE, and Co. For ourselves, we entertain no doubt of the issue; and we congratulate the people of West Hartlepool upon their prospects. The starting of the extensive mills named will be of the utmost benefit to the town, and will materially advance the prosperity which has led to the Hartlepools being one out of four, within a distance of 20 miles, of the 10 new boroughs created under the Reform Bill of 1867. Such men as Mr. THOMAS RICHARDSON have made Darlington, Stockton, Middlesborough, and the Hartlepools to possess a distinction which no other 20 miles in these kingdoms has attained in the few years which it has taken to make those places what they are. No wonder, then, that as far back as the year 1859, when the claims of the Hartlepools to the borough franchise were introduced to the House of Commons, Mr. RICHARDSON was spoken of as the man of all others most fitted to go up as its representative. Not only is he the largest employer of labour in the Hartlepools, but his practical experience as a financier has led to his being looked upon as "one of the most far-seeing men in the North." As an umpire in commercial disputes of magnitude, his services have been much sought, whilst "in the solution of many of the more difficult problems connected with the trade he has displayed an amount of perception and comprehensive business knowledge which must have been one great cause of his own prosperous mercantile career." More than half the electors of the Hartlepools are of the operative class. With the most valuable of their views those of Mr. RICHARDSON are in perfect harmony. With a comprehensive knowledge of business details, he will carry into Parliament a determination to combine his influence with those other men who are the advocates of immediate retrenchment of the national expenditure.

Mr. RICHARDSON is opposed by Mr. RALPH WARD-JACKSON, who, too, has been of immense service to the Hartlepools in the developing of its dock and harbour capabilities, but judged from a trade aspect, and with reference to those political views which are believed to be associated with the commercial progress of the nation, he does not possess the claims which so eminently distinguish Mr. THOMAS RICHARDSON. We call upon all persons who are connected with the mining and iron interests of this one of the new northern boroughs to throw all their energy into the scale on Mr. RICHARDSON'S behalf.

THE REPRESENTATION OF EAST STAFFORDSHIRE.

A vigorous effort is being made to deprive East Staffordshire of one, at least, of the two candidates who are now before that constituency, both of whom have strong claims to represent the division as trade members. In the *Mining Journal* of Aug. 15 we showed that an ineffectual effort had been put forth to induce Mr. BASS, the well-known brewer, to leave Derby and offer himself as the coadjutor in East Staffordshire of Mr. M'CLEAN. After some delay and refusal on the part of his son, who has been three years member for the borough of Stafford, to occupy the position which his father declined to accept, it is now announced that there is a probability of Mr. ARTHUR BASS leaving Stafford and going into the Eastern Division to try to win from Mr. JOHN HARTLEY the seat which he would so ably fill. On Thursday morning it was announced that young Mr. BASS was "wishful to throw up his candidature for Stafford in favour of the Eastern Division of the county," and that, having learnt this, the Liberals of Stafford would place no obstacle "in the way of his transferring his services to a more extensive and important constituency." If Mr. BASS should really come forward we trust that all voters interested in the staple trades of the county will combine their utmost energies on behalf of Mr. JOHN ROBINSON M'CLEAN and Mr. HARTLEY. In competition with either of these gentlemen so young a man as Mr. BASS, who is unconnected with the mining and iron interest, ought not to be thought of. Whether in the event of Mr. BASS'S candidature proving successful, Mr. M'CLEAN or Mr. HARTLEY would lose the seat to which they aspire is by no means certain. Politically, Mr. M'CLEAN and Mr. BASS are upon the same side—the Liberal-Conservative party being represented by Mr. HARTLEY. The peculiar claims alike of Mr. M'CLEAN and Mr. HARTLEY we have already sketched. The colliery interest in particular would extremely regret to lose the former, whilst the iron interests would be equally sorry to find Mr. HARTLEY supplanted by Mr. BASS.

THE PROBABLE EXHAUSTION OF OUR COAL FIELDS.

Nothing, perhaps, has done more to direct public attention to the importance of economising fuel than the alarm raised that our coal fields were rapidly approaching exhaustion; and amongst the most successful in giving that alarm a sensational character, Professor W. STANLEY JEVONS is certainly entitled to be ranked as foremost. It is true that the statements originally put forward by Prof. JEVONS were greatly misunderstood; and that after his elucidation of them, the views to which they gave rise were materially modified; yet he has ever since been regarded as one of the authorities on the subject, and all his subsequent communications have been received with the greatest interest. In another column of this day's Journal will be found the report of two highly interesting lectures delivered by him in the Theatre of the Literary and Philosophical Society of Newcastle-on-Tyne, in which the present aspect of the question is very fully and carefully discussed. After alluding to the opinions of Sir W. ARMSTRONG, first promulgated at the meeting of the British Association, five years ago, he said that, taking the world as a whole, we might consider the stores of coal practically inexhaustible, but of our own particular stores that can hardly be said. The quantity of coal worked yearly from British mines had been nearly trebled during the last 20 years, and had, probably, increased tenfold since the commencement of the present century.

The statistics collected by Mr. ROBERT HUNT showed that at the end of 1861 the quantity of coal raised in the United Kingdom had reached the enormous total of 86,000,000 tons, and that the annual average increase in the eight preceding years amounted to 2,750,000 tons. Sir WILLIAM ARMSTRONG deduced that if the annual increase continued at the rate of 2,750,000 tons the complete exhaustion of the workable seams would take place in little more than 200 years.

Prof. JEVONS invited the attention of his hearers to the amount of coal now drawn from the mines, showing an almost uniformly gradual increase in the get from 64,600,000 tons in 1854 to 101,630,000 tons in 1866 (the increase in the export of coal during the same period having been from 4,300,000 tons in 1854 to 9,367,000 tons in 1866); and, as Mr. HUNT had lately shown, the quantity of coal raised in 1867 was 104,500,480 tons, which exhibits an increase, as compared with 1866, of 2,870,000 tons; and it must be particularly noticed that this year was one of very severe depression in the iron and other chief coal-consuming trades. The total increase in 12 years had been 37,000,000 tons, or rather more than 3,000,000 tons per year.

There appears to be a fallacy, as Prof. JEVONS very truly remarked, in all the calculations made as to the duration of the coal in this country, as all appear to assume that the quantity worked and consumed must uniformly, or with very little fluctuation, continue to increase to the end—that is, the quantity up to the actual time of final exhaustion must be represented by a curve or line constantly ascending. The increase, taking the figures for the years from 1854 to 1866, appears to take place in a geometrical, and not in an arithmetical series. But this cannot continue uniformly up to the end; the curve or line must undulate as the demand and price to be obtained fluctuate, and the top of the scale must be arrived at some time, as the partial exhaustion of the main seams takes place, so that the curve will most probably be more correctly represented by a gradually increasing, though slightly undulating, curve or line, subsequently falling much more rapidly. We ought to have stated that the curve undulates from 1854 to 1866, but the fluctuation is so small that this part may be considered as a constantly ascending scale.

The highest point to be reached cannot, of course, be predicted, but it is evident that it must be reached some time, and it is probable that the descent in quantity will be much more rapid than the ascent; and it is also pretty certain that the quantity of coal raised in other countries must at no distant date be very greatly increased, as the existence of coal in large quantities in various countries has been sufficiently proved, and the sole difficulty in raising this coal appears to consist in the want of trained engineers and workmen suitable for the purpose. This want will, no doubt, be supplied gradually, as the natives of the various districts get initiated into the nature of coal working. At present the expense of getting workmen and engineers almost precludes the possibility of working these mines in a profitable manner; if, therefore, the calculation of Mr. HUNT be approximately correct the top of the scale ought to be reached in about 600 years, or less; and as the quantity raised then will probably decrease rapidly, the working of coal must be prolonged to an indefinite period.

STEEL EXPORTS.—Our exports of unwrought steel have shown a certain reduction this year, having amounted, in the eight months ending Aug. 31, to 18,521 tons, as compared with 21,978 tons in the corresponding period of 1867, and 22,689 tons in the corresponding period of 1866. The value of these exports was 602,521*l.* this year, as compared with 721,676*l.* in 1867, and 738,291*l.* in 1866 (first eight months). In the 10 years ending 1867, inclusive, the quantity of unwrought steel exported from the United Kingdom was as follows:—In 1858, 16,378 tons; 1859, 24,744 tons; 1860, 32,173 tons; 1861, 21,810 tons; 1862, 25,779 tons; 1863, 28,687 tons; 1864, 26,834 tons; 1865, 23,877 tons; 1866, 34,413 tons; and 1867, 32,526 tons. The value of

the unwrought steel exported in the 10 years was as annexed:—In 1858, 589,676*l.*; 1859, 805,832*l.*; 1860, 986,228*l.*; 1861, 726,956*l.*; 1862, 848,933*l.*; 1863, 935,517*l.*; 1864, 890,395*l.*; 1865, 782,129*l.*; 1866, 1,124,917*l.*; and 1867, 1,063,954*l.* Upon the whole, this branch of our exports has sensibly expanded during the last 10 years.

Welsh Smokeless Steam Coal at the Havre Exhibition.—Messrs. Wayne and Co., of the Gadlys Ironworks, Aberdare, whose Merthyr and Aberdare Smokeless Steam Coal has for many years been favourably known in the market, have been awarded the "Diplome d'Honneur" by the Commissioners of the Havre Maritime International Exhibition for the superior quality of their "Wayne's Merthyr Smokeless Steam Coal." Messrs. Wayne's coal has long stood first on the English, French, Spanish, and Italian Government lists. The award of the Havre Exhibition Commissioners is the more gratifying from the facts that the collieries from which the samples were obtained are amongst the oldest in the Aberdare district, and that at Havre no particularly attractive display was made—the block sent for exhibition was selected from a cargo which had been lying on a wharf at Havre nearly three months, and had to stand upon its own merits, and the result has been that it earned the highest distinction which the Commissioners could award.

Improvements in the Manufacture of Steel from Poor Ores.—The iron and steel patents of Mr. John Heaton, of the Langley Mill, in the Erewash Valley, are at the present moment attracting much attention. It will be recollected that the process consists in the use of an improved purifying agent, which appears to exercise a most important influence in the removal of the sole impurities which have prevented the ores of Cleveland and Northamptonshire being used in the production of the best quality iron. The Heaton process has been described by Mr. Robert Mallet, F.R.S., as one of those metallurgic advances which, both with respect to economy of production and utilisation of inferior pig-iron, leave their mark indelibly on great national industries. The report of Prof. W. A. Miller, of King's College, is quite as satisfactory as that of Mr. Robert Mallet. It appears that Prof. Miller visited the works in order to be enabled to report upon the process, and certify that the metal analysed by him was really the result of the process. The "converter" consists of a wrought-iron pot, lined with fire-clay; into the bottom of this a suitable quantity of crude nitrate of soda, combined with siliceous sand, is introduced, and the whole covered with a cast-iron perforated plate. The molten pig is now poured in, and in about two minutes the reaction commences. At first brown nitrous fumes are evolved, and these are followed by others of a more watery nature. After the lapse of five or six minutes a violent deflagration occurred, attended with a loud roaring noise, and a burst from the top of the chimney of brilliant yellow flame, which in about a minute and a half subsided as rapidly as it commenced. When all had become tranquil the converter was detached from the chimney, and its contents were emptied upon the iron pavement of the foundry. Professor Miller took samples of the various materials used, and carefully analysed the iron, both before and after it had been submitted to the process; and, as the result of his experiments, he states that it was proved that the reaction of the nitrate of soda had removed a large proportion of the carbon, silicon, and phosphorus, as well as most of the sulphur—the phosphorus retained was not sufficient to injure the quality of the steel produced. Steel made by the Heaton process has been tested by Mr. D. Kirkaldy, of the Grove, Southwark, and the results obtained afford strong evidence that uniformity of quality is practically attainable. With regard to the principle of the process, Prof. Miller considers it to be good, and the mode of attaining the result both simple and rapid. The nitric acid in the nitrate in this operation imparts oxygen to the impurities always present in cast-iron, converting them into compounds, which combine with the sodium, and these are removed with the sodium in the slag. The action of the sodium is one of the peculiar features of Heaton's process, and gives it an advantage over the oxidising methods in common use. The process will be more fully referred to in next week's Journal.

Gas from Bitumen.—Reference was some time since made in the *Mining Journal* to the important results obtained by Messrs. Upward and Cochrane, with their process for enriching illuminating gas by mixing a certain proportion of bitumen, such as that from the Trinidad Pitch Lake, with the coal ordinarily employed. At the Woolwich Arsenal Gas Works it was found that a mixture of 25 parts of bitumen with 75 parts of coal yielded 20-candle gas at the rate of 9856 feet to the ton. Calculating coal at 16s. and bitumen at 32s. per ton, it is estimated that gas of the quality mentioned could be supplied to the consumer at 3s. 7d. per 1000 cubic feet, and still leave a good profit to the manufacturer; and that this estimate is not too favourable has now been proved by the result of a long series of trials on a manufacturing scale, made by direction of the Gas Committee of the Corporation of the City of London. The experiments were conducted by Professor Frankland, Mr. Hughes, C.E., and Mr. Stephenson, C.E., and were continued for several weeks, and their report was most favourable. It is considered that the discovery will confer great benefits on the gas-consuming public, considering each 1d. per 1000 cubic feet represents a sum of 50,000*l.* per annum upon the gas which is sold in the London district.

Taxation of Mines, Ireland.—The enactment of the Poor Laws, and the consequent Poor Law valuation, entailed upon mining industry in Ireland a burden metallic mines in England have hitherto escaped, and will, no doubt, never suffer so heavily from whatever system of taxation may come to be imposed upon them. System, in fact, in the taxation of mines in Ireland there has not been, none is laid down, none understood to have been recognised. The ordinarily recognised principle that the sum a tenant would pay from year to year should be the basis of taxation has not been applied—indeed, truth to say, it was inapplicable, for anyone acquainted with mining property, its business, and its vicissitudes, will see that this would be impossible. The amounts of the lord's dues, which, in the absence of any defined data, would seem to present the most obvious amount of value liable to impost, was held by the "taxing powers" to be totally inadequate, and they have accordingly gone on taxing mines upon calculations of value of plant and investment of all kinds; yet admitted in a complicated manner certain drawbacks, it would take too long to explain—if, indeed, any clear explanation could be made. Recently the board of the Mining Company of Ireland appealed against the valuation made upon the lead mines in the county of Wicklow, and they carried their appeal. We have not before us the amount of the value as struck, nor the reduction they accomplished, but we know it was a substantial reduction. It was expected this question would have undergone a thorough discussion at the coming Waterford Sessions. The guardians of the Union of Bonmahon had appealed against the reduction of the hitherto valuation of Knockmahon Mine, fixed at 8000*l.* to 2000*l.*, and the hearing of the appeal would have come on this week. It is to be regretted that the guardians have withdrawn their appeal, and the reduced valuation, as made on the representations of the board of directors to the Commissioners of Valuation, goes as a matter of course. It is to be regretted, because, though the Mining Company of Ireland thereby accomplish their purpose, the occasion has been lost for getting a legal decision upon the question, and the laying down of a principle upon which metallic mines in Ireland will henceforth be taxed. The Poor Law guardians had but little interest in the matter, for the mining company are liable for so large a portion of the entire poor rate of the Union that the actual amount they will pay on the reduced valuation will be unimportant—they will simply pay a higher poundage rate upon a lower valuation, but they will save upon other county taxation, struck, as it will now be, on this lower estimate. That the valuation of 8000*l.* was, in the mine's best days, too high a value to have been placed upon such property for taxing purposes is certain, and the board of directors in past times would appear to have shrunk from their obvious duty in not challenging it. Prosperity makes men careless of cost, and proud of results paying high dividends. Taxes were a comparatively unnoticed cost; but when failing returns, low price of copper, a large stock of ore on hand, overvalued in estimate of assets, and a considerable debt to the banker, compel the looking into accounts, rather than the looking over them, the board now have taken the bold and wise course of refusing to pay any longer for appearance sake, if, indeed, they were ever actuated by that motive, and not simply by the indifference engendered by prosperity now past. To shrink from doing so—obviously the right and prudent thing—from the fear of depreciating shares, would have simply been an indirect mode of rigging the market.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,
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Mr. Wm. Thompson, of Rathbone-street, Canning Town, Essex, has specified a patent relating to the manufacture of iron castings. The chief object of this invention is to combine wrought-iron or other metals with cast-iron in the manufacture of castings, so as to afford great strength and durability to the said castings. For this purpose the patentee introduces into the mould for the casting bars, rings, or other suitable forms of wrought-iron or other metals, and he then pours the cast-iron into the mould, so as to surround and imbed the wrought-iron or other metal, either completely or partially, by and in the castings. In order to bring about a perfect union of the two different metals he previously casts a thin coating of cast-iron upon the bars, rings, or other forms of wrought-iron or other metal, in order that when these are introduced into the mould the molten cast-iron poured in shall in the first instance come in contact and effectually combine with the cast-iron coating of such bars, rings, or other forms of metal. Such previous coating of the wrought-iron is effected by dipping it in a thoroughly cleansed condition, and with a suitable flux, into a bath of molten cast-iron, and then withdrawing the same. The wrought-iron may be cleansed for the above purpose either by pickling or other known processes, or by the dipping process before mentioned; the iron being for this purpose first dipped and rapidly withdrawn, and then, after treating the same with a suitable flux, it is again dipped for the coating process.

Mr. John Wallis, of Greenwich, has obtained a patent for a mode of and apparatus for dressing millstones. The cutting tool which he uses in carrying out his invention is a diamond, or other hard stone or stones, set in a holder. The shank of this holder consists of a square stem of iron, the lower end of which is removable, but when in its place is secured by screws. A hole is drilled up the end of the tool, and is filled with a soft metal or alloy, such as is used for the bearings of machinery, and consists of a mixture of tin, zinc, and antimony. In order to secure the diamond in its setting, the removable part is removed, and after making a nick or recess in the lower end of the soft metal setting the diamond is placed therein, and the two parts of the holder are screwed together, so as to nip the diamond between the two pieces of soft metal. In order to dress the stone, the longitudinal frame, with the rest or tool holder, and the tool secured therein, is moved round the central step, secured within the eye of the millstone, and the diamond or cutting tool being made to press on the face of the stone will cut into the stone a curved line all round. Studs, pins, or stops are fixed either just outside the periphery of the millstone, or on the foundation plate of the step. A tappet wheel on the end of the screw of the slide-rest comes against these studs or pins every time the lever arm and tool holder are brought round to them, and thus the screw is caused to turn on its axis, and thereby to move the rest or tool holder a short distance along its guides, so that on the succeeding revolution of the apparatus round the central step the cutting tool will be made to operate upon a fresh part of the stone.

REPORT FROM SCOTLAND.

Oct. 21.—Pig-Iron has improved since my last, under the conjoint operation of speculative influences, and the purchase of the cash iron which had weighted the market till removed; and were it not for the steady influx of Middlesborough pigs a very marked advance would take place in all Scotch brands. This is the great bar to the possibility of "rigging" the Scotch pig-iron market to any great extent, and their price may be said now to modify to some extent prices here. At the close of last week the market had taken an upward turn, and on Monday a fair business was done in warrants, at 53s. 3d. cash. Yesterday the market opened stronger, and 53s. 4½d. was paid on early 'Change, but drooped towards the close to 53s. 3d., with buyers over. The market has been lifeless to-day, and little business will be done till Thursday next, on account of half-yearly religious services. About 1000 tons warrants reported at 53s. 5d. one month; closing sellers, 53s. 3d. cash, 53s. 6d. one month; buyers 1½d. per ton less. No. 1, g.m.b., 53s. 6d.; No. 3, 51s. 3d.; Coltness and Gartsherrie, 58s.; Calder, 56s.; Glengarnock at Ardrossan, 56s. The shipments of pig-iron for the week ended yesterday do not equal those in the same week of last year by 870 tons, the comparative statement being—for this year, 10,740 tons; last year, 11,610 tons. This makes the total shipments to date reach 479,445 tons, against 516,530 tons in the corresponding period, showing a decrease of fully 37,000 tons, while, on the other hand, the increase of Middlesborough pigs till Oct. 17 current exceeds 41,200 tons. For the first nine months of the year the average prices of pigs were, as compared with those of 1867, as under:—

	1868.	1867.		1868.	1867.
January	52s. 3d.	54s. 4½d.	June	52s. 2d.	53s. 7d.
February	52 4½	53 9	July	52 8	53 0
March	52 9	52 7	August	52 10½	53 4
April	52 3	52 0	September	53 8	54 3
May	52 2	53 3			

Manufactured iron is a little more sensitive in price this week, and some makers are yielding part of the advance they received a month ago, while others are said to be quoting an advance on the late rise. This last must be a very exceptional case, as the present tendency is, if anything, rather to a decline. A good deal, however, depends upon the current rates in the South, as Workington and other English brands of bars have found their way here, although, as yet, only in small parcels, but are telling on this market. Makers, on the whole, are fairly off for orders, but not pressed; and as a large tonnage has been contracted for by Clyde shipbuilders, angle and ship iron generally is expected to yield more remunerative prices on the orders about to be entered into than they have done during the past months of this year. The fame which the Clyde shipbuilders have acquired can only be maintained by good workmanship and good material; and this latter (in iron) can only be supplied by care in its manufacture, and in the scientific combinations of pigs which go to make a first-class and endurable iron. Bars, first brands, 7*l.*; second, 6*l.* 12s. 6d. to 6*l.* 15s.; nail-rod, 6*l.* 10s. to 7*l.*; angle, 7*l.* to 8*l.* 10s.; plates—ship, 7*l.* 10s. to 9*l.*; boiler, 9*l.* to 15*l.*, less 4 to 5 per cent. We notice the North British Railway Company are in the market for a supply of Bessemer steel rails; and the borough of Liverpool are open to contract for iron railings, gates, &c., to a limited extent.

The Coal Trade is difficult to improve, and has been unprofitable for months, the ironmasters competing with the coalmasters to such an extent as to prove injurious to the latter. Now that the shipping season is closed, and there being only the home demand, the coalmasters do not see how an increase is to be gained to meet the colliers' demand for increased wages, which will likely have to be conceded within a few weeks. This rivalry between the coal and iron masters is to be regretted, and yet one does not well see how it can be avoided. Both have heavy lords' dues to pay, are alike threatened with increased rates of transit by rail, and both are beset by clamorous demands for increased wages by their miners. Iron and coal are equally suffering depresssion—how are the masters to recoup themselves? The difficulty might, to our minds, be as easily and as satisfactorily solved by mutual arrangement as by destructive rivalry. The miners, endeavouring to compel an advance of 6d. a day on their wages, have brought out a work or two on strike, but they seem far-sighted enough to decline a general strike, which is wise. Perhaps the advance desiderated cannot be much longer delayed. Two new pits are being opened in the Airdrie district. The Shotts Iron Company are sinking a shaft to an ironstone pit on the estate of Browniside; and another leads to a coal pit, owned by Mr. Black, of Whiterigg, near the village of Ploins.

The shipbuilding on the Clyde continues very brisk, and we hear that a number of new contracts have been signed at satisfactory prices. The efficient workmanship, economic method of construction, and the splendid sailing qualities of Clyde-built vessels, have just been brought before our transatlantic cousins by the *New York Herald* in these terms:—"We have published at different times communications on the subject of establishing American steamship lines to Europe, and have endeavoured to stimulate enterprise in the matter. We have pointed to the surprising success of the British, German, and French lines, and ask why a portion at least of the vast trade they do with this country should not be done in American steamships? Not only do British capitalists who enter into the steamship business go to the Clyde for their vessels, but foreigners do the same, as they can get finer and cheaper ones there than at home. There are few of the vast fleet of fine steamships traversing the Atlantic in the German and French lines, as well as in the British Cunard and Inman lines, that were not built on the Clyde, and simply because this was the best place to go for them." Flattering as these terms are, they are strictly within the limits of sober truth, and will have the tendency to add to our local trade, as the statement is as disinterested as it is ingenuous. During the week we have launched a magnificent steamer for the North-German Lloyd's, of 3000 tons, named the Donau, and a splendid iron sailing ship of 1100 tons, for Hargrave, Fergusson, and Co., of Liverpool, named the River Krishna. These vessels are beautifully modelled, and are expected to be quick sailers for their class.

Submarine Lamp.—Mr. J. Ward, of Port Glasgow has invented a single but most ingenious apparatus for giving light beneath the surface of water. An ordinary lamp, consisting of oil-chamber and wick, is placed in a water-tight translucent case or lantern. The air for the combustion of the lamp is admitted by a tube, the free end of which is supported above the surface of the water, and the products of combustion are carried off by a second tube, which is likewise in connection with external air. The air in the lamp is rarified by the heat of the burning wick, and fresh air from without rushes in to take its place, so that a constant circulation of air is kept up and the lamp burns freely. If the outer translucent casing be made of glass, it is necessary to have it formed of two layers, so that air may be included between them, and in this way the outer layer is kept cool, and is, therefore, in no danger of being broken by the action of the cold water surrounding it.

REPORT FROM MONMOUTH AND SOUTH WALES.

Oct. 22.—It is somewhat satisfactory to find that operations at the principal iron-making establishments are being steadily pursued, and that masters have sufficient orders on their books to keep the hands employed with something like regularity for some weeks to come. As anticipated in a previous report, the Russian navigation season has closed before the engagements entered into were completed, but this is entirely owing to the lateness at which the orders were received, and the consequence is that several contracts will not be completed until the commencement of next season. Hopes are still entertained of the Russian engagements being shortly entered into, and should such prove to be the case, makers need not experience much difficulty in finding employment for their workmen until the commencement of the new year. There is a fair probability of a considerable demand springing up for rails and other *materiel* on Australian account during the next year or two, it being determined to borrow nearly three millions and a half of money forthwith, in order to proceed with the construction of various railway extensions in that colony; and South Wales makers entertain a hope of receiving a fair share of the orders. There is a falling off in the shipments to the United States, and as stocks in that quarter are reported to be large, it is feared that little or no improvement in the demand will take place until after the election of President, by which time stocks will have become reduced, and it is hoped better prices will then be obtained. The clearances to the Continent are not for very large quantities, but enquiries are considered satisfactory as to future requirements. The revolution in Spain, it is hoped, will be the means of extending commercial transactions with that country, and this will, in all probability, eventually be realised, as Spain is now anxious to take up a position with the other free and enlightened nations. There are indications in the home trade of a gradual improvement setting in, buyers evincing a greater disposition to enter into transactions than they have done for a considerable time past. Bars command a ready sale, and pigs of the best brands about an average demand. Tin-plate makers are not so well placed for orders as they have been of late, principally owing to the large stocks in the American markets, but as they will be speedily reduced it is expected that a revival will take place before many weeks have elapsed.

The Steam Coal Trade has not yet attained such a satisfactory position as many believed it would have done by this time, but this to some extent is owing to exceptional circumstances. For some weeks past merchants and shippers have had to contend with the difficulty of a want of suitable tonnage, and until this is removed the exports will not show any considerable increase over the corresponding period of last year. The demand from the mail packet stations is limited, and will probably continue so until the large stocks accumulated there during the time of the Abyssinian expedition become considerably reduced. Large quantities are being sent to South America, and some heavy shipments have been made to the Mediterranean ports. France continues one of the best purchasers, but to the other continental markets shipments are rather below the average. The output at the collieries is more than sufficient to meet the requirements of merchants and shippers, consequently there is a large number of loaded wagons on the sidings at the local ports. For house qualities the demand is below the average, notwithstanding the weather is much colder than it was a week or ten days ago.

The strike which lately took place at Rhymney among the colliers and miners, owing to some misunderstanding with the underground agent, Mr. D. Thomas, in consequence of his having placed gates at the ends of the horseways, in order to prevent the men going to and returning from their work only at stated hours, has come to a close, operations now being carried on as usual.

One of the large boilers of Messrs. J. P. Budd and Co.'s Ystalyfera Iron Works, Swansea Valley, exploded with considerable force, causing the destruction of a great deal of property, the loss of life of one man, and the serious injury of another person. Fortunately the explosion took place when the great body of men who are usually occupied at the furnaces surrounding the boiler were at dinner, or the consequences would have been very serious. The works usually employ several hundreds of hands, but in consequence of the caution on the part of the management there has hitherto been a happy immunity from such distressing accidents.

The Monmouth Forges, which have been closed for a considerable time, have been taken by Messrs. Griffiths, of Lower Redbrook, and they will commence working the same, not only as iron works, but also for the manufacture of tin, in about five or six weeks.

At the Swansea Police Court, Mr. John Lewis, boiler-maker, was summoned under the 9th section of the Factory Act for several offences—that on Oct. 12 he had employed a young person, under 16 years of age, without registering the time of his employment and re-employment. He was charged on a second summons with not having held a surgeon's certificate before employing him. He was charged under a third summons with employing a boy, on Oct. 2, without registering his employment, and, on another summons, with not having received a certificate of the boy's having attended school up to the week ending Oct. 1, as children under 12 years of age could not be employed without attending school daily. He was charged, in another summons, with a repetition of the offence on Oct. 12. Mr. Ewins, the Government Inspector for the district, and Mr. Mostyn, Sub-Inspector, appeared on behalf of the Crown. Mr. Mostyn said that he did not wish to press for severe penalties; but as the Act had been in operation since January last, it was full time that its provisions should be enforced in the district, otherwise the Act would be eventually inoperative. The defendant pleaded guilty to all the charges, expressing his regret that he did not know the Act was so stringent in his business. The defendant was convicted in the lowest penalty—2*l.* in each case; for not having a surgeon's certificate and for neglecting to have a school certificate, 1*l.*, the whole amounting to 7*l.* 13s., which was paid.—On Tuesday Mr. Isaac Jones, boiler-maker and engineer, was summoned before the same magistrates charged with infringing the provisions of the Factory Act. Mr. Jones pleaded guilty; but urged by way of extenuation that he had sent for the surgeon to examine the two boys as required by the Act, but the surgeon had not called. Defendant's business called him often from home, and he regretted that he had not seen the Sub-Inspector when he called, otherwise he should have readily complied with the provisions of the Act. There were four charged against the defendant, but two were withdrawn. For the other two he was ordered to pay 2*l.* each, and the costs of the four cases.

The arrivals at Swansea include—the Joseph Thomas, from Duendes, with 630 tons of copper ore and 630 ox horns, for H. Bath and Son; Symmetry, from Carloforte, with 218 tons of zinc ore, for H. Bath and Son; Zouave, from Bilboa, with 177 tons of iron ore, for W. H. Tucker; Valient, from Gothenburg, with 9688 pine deals, battens, &c., for T. Williams and Co.; St. Malo, from Bilboa, with 124 tons of iron ore, for W. H. Tucker; San Carlos, from Caldera, with 500 tons of bar copper and 168 tons silver ore, for H. Bath and Son; Gitanilla, from Cuba, with 555 tons of copper ore and 95 tons of regulus, for the Cobre Company; Henry Bath, from Taltal, with 710 tons of copper regulus, for H. Bath and Son.

The Representation of Merthyr.—Election matters in this borough have taken a rather singular and unexpected turn during the last few days, and the correspondence which has appeared in the *Cambria Daily Leader* indicates that passions have begun to be aroused, and a rather bitter contest may be looked forward to. Mr. G. T. Clark, of the Dowlais Iron Works, Chairman of Mr. Bruce's committee, addressed a letter to the local papers, stating that his efforts have hitherto been confined to promoting the return of Mr. Bruce, who has so long and so creditably represented the old constituency, and that he has been quite indifferent respecting the success of the other candidates. Within the last few weeks circumstances have arisen which have led him to alter his views. Those who advise and act for Mr. Fothergill have, he says, grossly aspersed the character of Mr. Bruce, and have distorted and falsified transactions in which that gentleman had been engaged, which, if truly related, would redound to his credit. Mr. Clark does not charge Mr. Fothergill himself with a guilty complicity in these acts, but as they are carried on by his agents, he thinks that he ought to suffer. He further states that Mr. Fothergill is opposed to the education of the working classes, and is a supporter of truck. For these reasons Mr. Clark intends to remain no longer neutral, but to vote for Mr. Bruce and Mr. Richard. An able reply to this letter has appeared from Mr. W. Simons, Mr. Fothergill's election agent. Mr. Simons characterises Mr. Clark's effusion as arrogant and abusive, and calls upon him to produce evidence of the truth of his charges against Mr. Fothergill or his agents. He maintains that Mr. Fother-

gill is not opposed to a suitable education being provided for the working classes, and he has given practical proof of it by his munificent subscriptions for the support of local schools. As to the double shift system, Mr. Fothergill is opposed to it, while Mr. Bruce, it appears, delivered a speech in its favour in the House of Commons. Evidently the contest is becoming an exceedingly personal one, and it is a matter of regret that men of the position and attainments of Mr. Fothergill and Mr. Bruce should be, as it were, pitted against one another, through the indiscretion of their supporters.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Oct. 21.—Accounts from all parts of the two iron-making districts concur in representing that a quiet, steady trade is being done, and that the demand for iron has assumed every appearance which betokens a permanent recovery from the late depression. So often have indications which seemed to promise improvement belied the expectations founded upon them that people are slow to trust even continued signs of a better demand, but these doubts are gradually passing away from the most incredulous. In North Staffordshire the ironworkers held a meeting at Burslem, on Saturday evening, on the subject of wages, and resolved to forward a communication to the Chairman of the Ironmasters' Association, requesting him to call an early meeting to consider their request, to have an advance of 1s. per ton in the price paid for puddling iron. It was a quiet, well-conducted meeting, but there seemed a strong feeling to the effect that the improvement in the state of the trade justified the demand for an advance. To most persons having any knowledge of the causes of the late improvement, and the effect of an advance in the price of iron, which must follow a rise in wages, it is clear that to take such a step now would be certain to check the recovery which is going on, and to put back the arrival of the state of things which will justify a higher scale of prices and wages.

It is worthy of mention that the committee appointed to revise the assessment which forms the basis of the county rate of Staffordshire has just completed its labours, and the report raises the value of the fixed property of the county on which rates are levied by upwards of half a million, or one-fifth more than the amount at which it was fixed five years ago. No one will doubt that this increased value of property arises mainly from the mining, manufacturing, and commercial enterprise of the populous districts, which county gentlemen are rather apt to view with a feeling far removed from warm appreciation. It would be well for them to consider how greatly their incomes depend on the busy toil which mars the picturesque beauty of the landscape, and how, whilst they enjoy the luxuries of ease and travel, and congenial pursuits, which serve to relieve the tedium of their lives, they are, by the increased value which the creation of wealth by the industrious communities of towns is adding to the value of their property, taking tithe of all the exertions of all the busy brains and hands in the county. These considerations will come up to the surface when we have a real discussion on the question of local rating, and proposals to relieve fixed property from a portion of the burdens which now press upon it.

On Saturday evening about 230 members of the Birmingham branch of the Amalgamated Society of Engineers dined together, and Mr. John Wilson, assistant secretary in London, who presided, gave an interesting account of the working of this great society. He stated that the income of the society in 1867 was 109,509*l.* Of this they paid away to men out of work 58,243*l.*, or more than half. They contributed 15,557*l.* for sick pay, 5982*l.* for superannuation, and 1000*l.* for accidents; for funerals 5282*l.*, for benefit grants 2249*l.*, making altogether 88,313*l.* He evidently felt some doubt about the soundness of the society, but said any deficiency could be met by extraordinary levies; but this means that the present young members are subscribing for the benefit of the old, and not for themselves; and he spoke much more wisely when he said that if they were not in a sound position the sooner they knew it the better, in order that they might at once devise a remedy. It is a pity so great a society does not thoroughly grapple with this vital question.

William Gould, chartermaster, and Richard Scriven, his deputy, were, in accordance with the colliery rules, examining the workings of a pit belonging to the Earl of Dudley, at Dudley Wood, on Friday, when a fall of coal seriously injured them both.—On Monday, two men were removing the props from a part of the workings at the Winghay Colliery, near Burslem, when a fall of dirt buried one, and partially covered the other. Six hours elapsed before they could be got out, when one (Clewes) was dead, and the other injured in his limbs.

The North Staffordshire Field Naturalists' Society intend holding their last meeting of the present season in the "Big Pit," Hanley, on Tuesday next, when a paper on the workings will be read by the managing engineer.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Oct. 22.—The Iron and Coal Trades of the district are in about the same state as last noticed. The foundries are kept well going, and at some of the iron works there is a little more doing. There is some prospect of the furnaces at Oakerthorpe, which have been out more than a year, being once more in blast. They are of a very compact character, and have the great advantage of being quite close to a railway station, as well as to the collieries belonging to the same company, but which, with the furnaces, are now in the market, and about to be sold. There is rather more doing in coal, and the stations at Eckington, Staveley, Chesterfield, and Clay Cross appear very active, being thronged with hundreds of loaded and empty wagons. There is a moderately good business being done to London, about 1000 tons per day going from Clay Cross alone. A very considerable tonnage of gas and house coal is also being forwarded to Birmingham and the Midland district generally, whilst from the collieries on the Erewash Valley route a good deal of hard coal is being sent into Northamptonshire for the use of the iron works there. The trade to the district around Wellingborough promises to increase, seeing that some new furnaces and other works are being erected close to the station, owing to the valuable character of the fields of ironstone which are around. From Church Gresley and the neighbourhood a moderately good business is being done, and the collieries are now fairly working. The want of better station accommodation at Chesterfield, which has long been a source of complaint, and which, owing to the great increase in the coal trade, may be looked for from the new collieries now being opened out, is about to be afforded by the Midland Company. Mr. C. Markham, the respected managing director of the Staveley Company, has been in communication with Mr. Allport on the subject, and has received a letter from that gentleman stating that the directors have sanctioned a very comprehensive scheme for remodelling the Chesterfield station. The alterations are to be commenced immediately, at an estimated cost exceeding 30,000*l.* There is now every prospect that a station fully equal to the requirements of the locality will shortly be completed. This is rendered more necessary seeing that there will be a very large increase of traffic at the station when the new line from Sheffield is completed.

Business generally is gradually improving in Sheffield, and some of the heavy branches of the iron trade are rather busy. Heavy armour-plates are being manufactured to a large extent, and there are some rather extensive orders in hand. The Steel Trade is also becoming more active, and the prospects with regard to most departments are more encouraging than they have hitherto been. The Rotherham district, like Sheffield, is improving, and there is more activity at the various works there than for some time past. The same may also be said with regard to Milton and Elsecar, where almost every branch of the trade is really active, the men in some departments working night and day. The delay occasioned by the exploding of one of the boilers has been got over, and full work again resumed. The enquiry concerning the deaths of the two men who were killed by the explosion was resumed to-day before Mr. Woodhead, the deputy-coroner for the district, when the evidence of Mr. Macnee, C.E., went to show that the boiler was apparently a very good one, and that the explosion was the result of some latent defect, probably in the plates. The jury consequently returned a verdict of "Accidentally Killed."

The Coal Trade of South Yorkshire remains without alteration. There is a slight improvement in the demand for household qualities, but there is a gradual falling off in the tonnage to Hull and Grimsby for shipment to the North of Europe; indeed, it may be said that this important branch will very shortly be closed altogether, seeing that almost any day we may expect to hear of the ice making its appearance on the Neva, which will at once close all exports for the year in that direction. During the past week several deputations of workmen have waited on the colliery owners, by whom they are employed, asking for an increase of wages to the extent of 5 per cent. It will be recollected that about five months ago, owing to the stagnation of trade, and the reduction of wages submitted to in almost every colliery district in the kingdom, the miners in the neighbourhood of Barnsley agreed to a reduction of 5 per cent. They now desire to have that restored to them. The masters, on the other hand, state, with great fairness, that the trade is still dull, and that having, earlier in the year, been compelled to lower the prices of coal to keep their pits going, they are now in the same situation they were then, and are not in a position to give the increase demand. So far as the men are concerned, we believe that the matter will be fully gone into at the meeting of the Union delegates on Monday next, and decision on it come to.

REPORT FROM NORTHUMBERLAND AND DURHAM.

Oct. 22.—There is no change of importance to notice in connection with the Coal Trade, dulness being still too much the prevailing characteristic. Cold weather having set in, the demand for house coal has improved a little, and the demand for gas coal is certainly improved also, but for other kinds of coal, including coking coal, the demand is not at all good.

A presentation of a very handsome gold watch was made to Mr. Fenwick on Saturday, on the occasion of his leaving the Broomhill Colliery to take the management of the Team Colliery, near Gateshead.

At the Cleveland Iron Market, on Tuesday, there was a very large attendance. The bar-iron trade is well maintained, and prices firmer. The demand for ship-iron continues moderately good, the shipyards on the northern rivers—the Tyne, Wear, and Tees—being pretty well employed. The quotations for pigs remain at—No. 1, 46s. 6d.; No. 3, 43s. 6d.; and No. 4, 42s., f.o.b., on the Tees. The quantity of iron in warrant stores is still decreasing, and this is expected to continue, which is a hopeful sign of better times. Generally the tone of the market is very firm, and makers look forward to better prices shortly. Foundries are pretty well supplied with orders. The Coal and Coke Trade continues dull.

It will be remembered that the subject of dock and harbour accommodation at Middlesborough has often been noticed in this letter. On Tuesday the monthly meeting of the Chamber of Commerce was held, when the secretary reported that the joint deputations appointed by the Chamber and Town Council had succeeded in prevailing upon the North-Eastern Railway Company to sanction an expenditure of 90,000*l.* towards the enlargement of the Middlesborough Dock, and that this resolution was formally made known on the preceding day. The subject of taking an educational census for the borough of Middlesborough gave rise to a discussion, in the course of which Mr. E. Williams expressed his opinion that not more than one-half the children of Middlesborough received a proper education, and urged the necessity of the ironmasters doing their duty in this respect. It was agreed that an educational census should be taken, and a letter was read from the Town Clerk intimating the readiness of the Council to aid in the work.

PROFESSOR JEVONS AND SIR WILLIAM ARMSTRONG ON "THE EXHAUSTION OF COAL."

Prof. Jevons delivered at the Literary and Philosophical Society, Newcastle, two lectures on "The Exhaustion of Coal" to a large audience. He said that it was in this town five years ago that Sir W. Armstrong, in his address to the British Association, very appropriately referred to the rate at which they were consuming the coal stored in their seams. He said, "Taking the world as a whole, they might consider the stores of coal practically inexhaustible and hitherto untouched; but of their own particular stores that was hardly to be said. There was much cause for anxiety, he held, in the fact that they had already drawn from their choicest mines a far larger quantity of coal than had been raised in all other parts of the world put together, and that the time appeared not to be remote when they should have to encounter the disadvantage of increased cost of working and diminished value of produce." Sir Wm. Armstrong then continued to say that estimates had been made at various periods of the time which would be required to produce complete exhaustion of coal in the British Islands. The estimates were certainly discordant; but the discrepancies arose not from any important disagreement as to the available quantity of coal, but from the enormous difference in the rate of consumption at the various dates when the estimates were made, and also from the different views which had been entertained as to the probable increase of consumption in future years. The quantity of coal yearly worked from British mines had been almost trebled during the last 20 years, and had probably increased tenfold since the commencement of the present century; but as that increase had taken place pending the introduction of steam navigation and railway transit, and under exceptional conditions of manufacturing development, it will be too much to assume that it would continue to advance with equal rapidity. The statistics collected by Mr. Hunt, of the Mining Record Office, showed that at the end of 1861 the quantity of coal raised in the United Kingdom had reached the enormous total of 86,000,000 tons, and that the average annual increase in the eight preceding years amounted to 2,750,000 tons. He (Sir W. Armstrong) then proceeded to consider what would happen if the increase continued at the rate of 2,750,000 tons a year, and deduced that a complete exhaustion of the workable seams would be occasioned in little more than 200 years. He (Prof. Jevons) had thought about the subject a little before, but those prominent remarks of Sir William Armstrong, and the sensation which they created in the public mind, led him to think a great deal more about it. It appeared to him a singular fact that there should be less doubt about the quantity of coal available, at least in Sir W. Armstrong's opinion, than about the rate of future consumption of coal; those who had previously written upon the subject, Williams, Bald, Buckland, Holland, Sopwith, Hall, and Hull, were either geologists or men engaged practically in the coal trade. None of those had sufficient time or spare thought to enter fairly, as it seemed to him, into the statistical and economical facts and principles which alone could enable them at all to estimate the future consumption of coal, and he, therefore, undertook a careful consideration of all facts bearing upon the question of the duration of their coal. They might regard the matter under two headings. First, the aggregate supply of coal available; secondly, the aggregate demand for it. Those two elements were to be determined by radically different branches of science. The first belonged to the geologist and mining engineer, the second to the economist and the statist. Having but a slight knowledge of geology, and no practical knowledge of mining, he leaned for his knowledge of the first element almost entirely upon others who were authorities upon that subject. He might have to make some remarks incidentally concerning the supply of coal, but he passed on to the equally or more important subject, the probable demand. He would invite their attention to the amount of coal they now drew from their mines in a year. The great pyramid of Egypt, which Herodotus said was raised by 100,000 men in 20 years, contained 3,394,307 cubic yards of stone, and the coal raised by about 250,000 British coal miners in one year (1865) consisted of about 100,000,000 cubic yards, or 30 times as much material as the great pyramid in bulk. The comparative statement of coal raised since 1854 was as follows:—

Year.	Tons of coal raised.	Exported.	Year.	Tons of coal raised.	Exported.
1854	64,600,000	4,300,000	1861	85,600,000	7,200,000
1855	61,400,000	4,900,000	1862	83,600,000	7,600,000
1856	66,600,000	5,800,000	1863	88,200,000	7,500,000
1857	65,300,000	6,700,000	1864	92,700,000	8,000,000
1858	65,000,000	6,500,000	1865	98,100,000	8,500,000
1859	71,900,000	7,000,000	1866	101,630,000	9,367,000
1869	83,200,000	7,400,000			

Now, was the coal which they were procuring so great in quantity that it could not be increased, or should they still see it growing? Mr. Hull, in the second edition of his work on the coal mines, held that their consumption would not pass 100,000,000 tons, an event which had already come to pass in 1866. Sir Wm. Armstrong, again, took 2,750,000 tons as the full annual increase to be expected. Now, he (Prof. Jevons) had been, and was, of a totally different opinion. He felt sure that they had not in any degree reached a limit, nor were they likely to do so at present. Within the last few weeks a remarkable confirmatory fact had been published. Mr. Hunt had completed his returns of coal production for 1867, and the total amount of coal raised was 104,500,480 tons, which exhibited an increase, as compared with 1866, of 2,870,000 tons. That quantity, it would be seen, exceeded the 2,750,000 tons contemplated by Sir W. Armstrong. But they would not rightly estimate that fact unless they took into account the character of the year, which was one of most severe depression in the iron trade and the other chief coal-consuming trades, arising from the sudden cessation of railway making and all kind of enterprise. It was the year, in short, following one of the greatest collapses of industry in modern times. Had a positive decrease of production occurred in that year he should not have been surprised, or have felt his argument weakened materially; but he must say that it startled and astonished him, after all he had anticipated, to find so great an increase going on at present. If they looked at the records of coal produce (as above given) they would find that there had been a growth of 50 per cent. in 12 years. The total increase was 37,000,000 in 12 years, or rather more than 3,000,000 per year. If they took the period from 1861 to 1866 they would find that the average annual increase had been 3,200,000, which it would be noticed was more than Sir Wm. Armstrong took as the yearly increase. A still more interesting series of numbers consisted in the quantities sold, or the vend by sea, of coal from this place. From Mr. Taylor's "Archæology of the Coal Trade" he had carefully formed this table:—

Year.	Vend from Newcastle.	Increase for 50 years.	Rate for 50 years.
1609	251,764	—	—
1660	537,000	279,643	110
1700	650,000	141,250	27
1750	1,193,467	543,467	84
1800	2,529,075	1,326,608	111
1863	16,813,146	11,343,767	351

Now, he found in Mr. Hunt's Statistics that the total amount of coal raised in Durham and Northumberland in 1866 was 25,194,500 tons, and excluding from that about 3,600,000 said to be used on the spot, they had 21,600,000 as the vend of coal from that district. Since 1863, then, the increase had been such as would amount to 79,780,000 tons in 50 years. The gross produce sold from and used at the collieries of Northumberland and Durham, according to Mr. Hunt, in 1862, was 19,360,000; in 1863, 22,154,000; in 1864, 23,284,000; in 1865, 25,032,000; in 1866, 25,194,000, which gave an annual increase of 1,459,000, or in 50 years of 72,950,000. From those and other figures which he adduced, he argued that it was apparent that the increase took place in a geometrical and not in an arithmetical series; that, in fact, it proceeded by multiplication and not by addition. He then proved that the geometrical tendency was the natural law of human affairs, applying it to population, and saying that it was self evident that if each family had on an average four children who married, there would be twice as many families at the next generation, and if everything went on in the same manner, there would be four times as many in the succeeding generation, and so on in geometrical ratio. But population could only expand in that manner provided it had the means of getting adequate subsistence. In a boundless country like the United States, where a man of ordinary strength could always find land and could raise enough corn for himself and family to live upon, the population would expand geometrically. They had no land to spare, and their agricultural population was contracting rather than expanding, but coal was to us what corn was to them. It was their staple commodity, by which, when properly used, they could obtain everything they liked. He finally dwelt upon the valuable properties of coal, describing it as a universal agent and assistant, as their material mainspring—as the true philosopher's stone of modern science and industry. The wonderful usefulness of coal he ascribed to two facts—first, the enormous power which was latent in it, and which they brought forth and expended when they burnt it; and, secondly, the fact now so clearly revealed by science, that force was the key to all the changes of matter. Reflections of that kind supported, he said, the prediction which he ventured to put forward, that even 100,000,000 tons was only the starting point of a greatly increased consumption of coal. It might seem that they could well afford to expend 100,000,000 tons of coal a year, considering that, according to Mr. Hull, there was at the lowest computation 83,544,000,000 tons, giving them a continuous annual supply at the present rate for 835 years to come. There was a strong tendency of opinion to finalism in believing that they had got a long way towards the end of their coal; and that they were nearly in as high and perfect a condition as circumstances admitted. If the name of finalist were applied to him he should hurl it back upon the user. There was no real finalism in the material, and in a certain sense the accidental fact, that the coal seams were not greater than they are. So far from thinking that they had come near the end of scientific and industrial progress was he, that he could assure them that progress was the very gist of his argument. He believed that there was an indefinite sphere for invention, but that invention would, for a long time to come, take the direction of developing the uses of coal in a manner far surpassing its uses even at present. He was not a finalist, even so far as to look on coal as the last and best source of power and heat. He did not deny, nay he almost believed, that some means might be found in the course of ages for collecting power from the sun's rays or some other source.

At Prof. Jevons's second lecture Sir William Armstrong, the President, occupied the chair. In his first lecture Prof. Jevons showed at what a high rate the increase of coal consumption was actually taking place, and how probable it was—judging from the almost infinitely useful qualities of coal—that that increase must go on. They must eventually find a difficulty in getting as much coal as they should like to use at the present price, and an increased price of coal, a price higher here than elsewhere, must be the result. But a number of suggestions were made as to the mode in which they might meet the difficulty, and restrain the consumption from rising inconveniently. It was said that they might economise coal, and thereby lessen the consumption. It was said that if it came to the worst they might probably do without coal, and find some substitute for it—electricity, for instance. And if they could not find that substitute, at any rate they could import coal from places where it was more cheap—North America, for instance—just as they now exported it. He would consider these suggestions in succession. He was quite aware how great a margin for economy there was in the use of coal. The fact was they used a very small fraction of the heating power of coal. The fraction, of course, was very various in different employments, and they might describe it as generally lying between one-fifth and one five-hundredth parts. In an ordinary kitchen fire how small was the proportion of heat which actually did get into the pot and boil it; how many times greater was that which escaped into the kitchen or up the chimney. The most economical engines which they used did not convert more than one tenth of the heat into useful force. It was known that the higher the intensity at which heat was used in the engine, the higher in proportion would be the results gained from it; it was only mechanical difficulties that stood in the way, and those were being slowly overcome, and would be had no doubt, be eventually overcome. Supposing some invention which would double the efficiency of coal in producing power, would not that halve the consumption of coal in the engines? That was the false notion which possessed the public on the subject. There was no more certain means of increasing the consumption of coal than diminishing the quantity which an engine consumed, supposing there to be no corresponding increase of cost in the engine itself. Any one engine burnt less, but then it yielded a higher profit, and that soon led to the use of more engines. Experience certainly showed that an increase in the total consumption surely followed. The old engines of Newcomen could hardly be used at all, and then only where coal was very abundant, because they burned so much of it. This might be a paradox, but it was a true one—they burned very little coal because they burned too much. Smeaton improved the engine, and it began to burn much more. The admirable improvements of Watt consisted almost wholly in encouraging the use of coal, and he more than anyone had led to our present vast consumption. There was no reason to suppose that it would be different in the future. If an engine could be made to burn less coal without an equivalent increase in the cost of the engine, power was got more cheaply; and, as always happened, they were induced to use more of it. In the case of marine engines any saving that could be made in fuel was doubly felt, because there was the saving in the cost of the fuel, and still greater saving in the room occupied by the coal. The less coal a steamship had to carry the more cargo she could take; accordingly the most persevering efforts had been made to extend the efficiency of marine engines, and the advance had been to the amount of about double efficiency in 15 or 20 years. No longer time ago than that marine engines, burning 7 lbs. of coal per horse-power per hour, were thought good engines, and the Admiralty allowed 8 lbs. Now 3½ lbs. was considered a moderate consumption, and engines made by Messrs. Maudslay had worked, under favourable circumstances, as low as 1·9 lbs. per horse-power per hour. The result of that great advance was that steamships were beating sailing vessels out of the field altogether. Steam vessels had now been in vogue more than half a century, but they were only now approaching to anything like general use: he confidently believed with regard to that branch of the service they were only at the beginning. The economy of fuel attained was already enabling the steam vessels to take a larger share of trade, and it was only greater economy that was needed to make the development of steam navigation universal. In that case, they would see clearly how economy really tended to a great increase of consumption. Another great mode of economy was being developed by Mr. Siemens in his regenerative gas furnaces, which seemed to possess the same importance for the furnace generally that Watt's condenser did to the engine. The difference between Mr. Siemens's furnace and all others was that the one was a reservoir of heat, the other a mere running stream. Mr. Siemens's did not allow heat to escape up the chimney, but caught it on the way, somewhat as a respirator caught the warmth of the breath. He was thus enabled to accumulate heat to any degree almost. Such was the economy attained that his steel smelting-furnace was capable of doing with 15 or 20 cwts. of common coal slack, costing, perhaps, 5s., what required in the Sheffield smelting-furnaces 3 or 4 tons of the best coke, costing 75s. The improvements, too, which Mr. Bessemer and Mr. Siemens had made in steel manufacture would inevitably lead to a complete revolution in iron metallurgy; but there was no reason to suppose that such an improvement would check the consumption of fuel; judging by all previous instances, it would lead to a greater consumption. The cheaper the material, the greater the demand, and for iron and steel the demand must be unlimited. It was continually suggested that some substitute would be found for coal. Appeal was made to some old proverb—"Necessity is the mother of invention;" or "Where there is a will there is a way," and it was argued that when their need of coal was sufficiently great, some new source of heat would be found. Now, he altogether disputed the truth of the popular notion that when their necessity was sufficiently great some great discoverer or some accident would present them with the remedy. A few striking and fortunate instances of remedies opportunely discovered made them overlook the hundred thousand evils which mankind had endured since the world began. The fact was that they lived in a chronic state of necessity and difficulty, and the great discoveries which had benefited men were so many exceptional cases in which they had been relieved from labour and evil. He did not think that electricity could be a substitute, and after glancing at Tyndal's views upon that point, gave an account of the experiments of Captain Ericsson in endeavouring to supply a new fuel in place of coal, and a new motive power instead of steam, by collecting and concentrating the radiating heat of the sun, with which, so to speak, to heat his furnace, and stated that it corresponded exactly with a notion which he (Prof. Jevons) had spoken of in his work on the coal question, and he did not look upon it as unlikely to be carried out some day into practice. But if it were carried out they should find themselves replaced, and the seats of industry would be removed to other parts of the world. According to a calculation he had made, the heat which the sun showered, when vertical in a clear sky, upon a surface of 10 square feet was equivalent to 1·25 of a horse power; the quantity, however, was so great that from 10 square feet they could get 12·5 horse power; from 100 square feet, 1250-horse power. It was obvious that only a small fraction could be actually utilised. The calculation supposed that the sky was always perfectly clear, and the sun vertical in it, and the real amount of power derivable depended upon the latitude and the climate. The relation between the coal trade and the mercantile marine was very intimate. England possessed by far the largest mercantile fleet, and that was in no slight degree owing to the coal trade. Some people attributed their success in navigation to the Navigation Laws, but it was due mainly to the rearing of their sailors in the Newcastle colliery fleet. It was an exceedingly ancient trade, for in Prof. Rogers's new work on Prices they learnt that sea coal, as it was called, was used as early as 1279 at Dover, in the castle, and a century after it was mentioned as used in Hertfordshire, Suffolk, Southampton, London, and in Wiltshire. It was said that "the collier trade was the true parent and support of their navigation;" that "it was the collier trade alone that afforded constant work to the navigation of England," for "it was there that every idle ship and every idle sailor were sure never to want a voyage or a berth to Newcastle." This led to an increase in homeward freights. So far he had considered Great Britain only, and compared its consumption with its stores of coal; but his argument would wear a more convincing appearance if they took into account other countries, with their amounts of consumption and stores of coal. It would seem that the total produce of coal in the world, as far as ascertainable, was only 147,000,000 tons a year, of which their produce was 101,000,000, or 57½ per cent. They were only 30,000,000 people out of perhaps 1,200,000,000 who inhabited the hearth; they were only 2½ per cent. of the population, but they used 57½ per cent. of coal—the most powerful agent of civilisation. When they considered the power which there was locked up in coal, and to what manifold uses it might be turned, they could hardly over estimate the odds which they had had in their favour. And it was very strange that the whole coal resources of the globe at present known were in the hands of the Teutonic race. Thus, if to their own amount—101,000,000 tons—they added 25,800,000 tons, the coal produce of the United States, and 1,750,000 tons the produce of their own colonies, they found that this country and its immediate offspring produced 73 per cent., or about three parts out of the four, of the coal which was known to be used in the world. The general result was, that they were drawing largely upon their supplies of coal, and were foremost in its use when the employment of it was being rapidly extended. In 50 or 100 years the power of coal would be more supreme than it was now, but should they stand in a position of comparative inferiority, what then were they to do? Were they to draw in; to lay prohibitive taxes on their industry; to try to reduce the consumption of coal, so that they might have more to use 100 years hence? He thought that they should freely use the wealth at their disposal. They dragged with them at present dead weights of poverty, ignorance, and debt transmitted to them from the past. Let them not revile the past, but so act in the present that the country might be best fitted to encounter any troubles or loss of prosperity with which it might be threatened in the future. They should expend and invest their wealth to improve the intellect, ameliorate the condition, and lessen the burthens of their people—(applause)—so that when any check to their growing prosperity came they might be able the better to bear it. (Applause).

Prof. Jevons said he should be happy, if able, to answer any questions that might be put to him, and Sir Wm. Armstrong invited discussion.—No one made any remarks, and the Chairman said it appeared that the audience was well satisfied. They concurred generally with Mr. Jevons's views, whatever question might have been raised on minor points.—*Newcastle Daily Chronicle.*

London General Omnibus Company.—The traffic receipts for the week ending Oct. 18 amounted to 10,567*l.* 4*s.* 9*d.*

THE MEXICAN RAILWAY COMPANY (LIMITED).

Issue of £560,000 First Mortgage 8 per cent. Bonds at 85.

CHAIRMAN.
ROBERT WIGRAM CRAWFORD, Esq., M.P.

DIRECTORS.
WILLIAM BARRON, Esq.
GEORGE W. CAMPBELL, Esq.
JAMES H. CRAWFORD, Esq.
ANTONIO ESCANDON, Esq.
HENRY H. GIBBS, Esq.
J. STEWART HODGSON, Esq.
LOUIS HUTH, Esq.
THOMAS C. SANDARS, Esq.

BANKERS.
Messrs. GLYN, MILLS, CURRIE, and Co.

SOLICITORS.
Messrs. FRESHFIELDS.

BROKERS.
Messrs. P. CAZENOVE and Co., 52, Threadneedle-street, London.
Messrs. HILL, FAWCETT, and HILL, 29, Threadneedle-street, London.

OFFICES,—18, NEW BROAD STREET, LONDON.

The Mexican Railway Company was formed in 1864 for the purpose of taking over and completing certain railways then in course of construction between the City of Mexico and the Port of Vera Cruz. Of the entire main line—261 miles—a length of 47 miles from Vera Cruz to Paso del Macho was opened in that year, and a further length of 86 miles from Mexico to Apixaco in January, 1867. A branch line of 29 miles from Apixaco to the City of Puebla is well advanced towards completion.

Upon these works, and the intermediate parts of the line not yet completed, a sum exceeding in the whole 2,000,000 sterling has been expended, and only a moderate additional outlay is now required to establish an integral communication between the important City of Puebla and the Capital, by the opening of the branch line from Apixaco.

The board of directors have received the special sanction of the shareholders to mortgage the net traffic receipts of the line now open, and in active working, between Mexico and Apixaco, and its continuation of Puebla.

The gross traffic on the line from Mexico to Apixaco for the year ended on June 30 was at the rate of £21 17s. 4d. per mile per week, producing a net income of upwards of £45,000; and it is considered that the opening of the branch line will increase the existing traffic at least threefold.

A statement of the traffic receipts in question is annexed to the prospectus, from which it appears that the revenue of the line is already sufficient of itself to provide for the interest on bonds for the sum of £560,000, now proposed to be issued.

This traffic has been mostly of a local character, connected with the supply of the daily requirements of the population of the City of Mexico and its environs. The early completion of the line to Peubla will bring that important centre of population also into direct communication with the fertile districts which supply the capital, and at the same time intercept the traffic with the coast, which now finds its way to Mexico by the ordinary highway.

In addition to the net traffic receipts now specially assigned, the company possesses its receipts arising from the working of the open line from Vera Cruz to Paso del Macho (which in the gross amounted to upwards of £240,000 from April 1, 1865, to June 30, 1868), and its interest in the grant from the State, of £112,000 per annum, from the "Mejoras Materials" or "Public Works" Fund, charged on the customs' receipts.

The contribution for five years of 15 per cent. additional customs' duties by the State to the capital of the company, originally estimated at about £180,000 per annum, remains available for the further prosecution of the works.

The bonds will be termed "Class A, Mortgage Bonds." They will constitute a first charge upon the net traffic receipts of the line from Mexico to Puebla, and will be redeemable at par by equal half-yearly drawings extending over a period of 30 years from the date of issue. The first drawing will take place on October 15, 1870.

Power is reserved to increase the amount of the bonds to be drawn on any one or more occasion, and also to pay off at par the entire outstanding amount of the loan after three months' notice advertised twice in one of the London daily newspapers.

The bonds payable to bearer will be issued in denominative amounts of £100, £200, £500, and £1000.

The bonds will bear interest at the rate of 8 per cent. per annum, payable by the company at the bank of Messrs. Glyn, Mills, Currie, and Co., on the 1st February and 1st August in each year, and are offered at the price of £85 for every £100 of nominal amount. Payment will be required to be made as follows:—

£5 on application.
£15 on allotment.
£20 on 16th November, 1868.
£20 on 16th December, 1868.
£25 on 1st February, 1869, less £4, the half-year's interest,

minus income tax; but the several instalments may be paid up in full, if desired, at any time, under discount at the rate of 5 per cent. per annum.

The Deed of Mortgage, by which the net traffic receipts now assigned are conveyed to trustees for the purposes of this loan, may be seen at the offices of the company, where copies may be obtained of the recent reports of the directors to the shareholders, of the proceedings at the special meetings held to give effect to the proposal, and other documents of general interest in connection with the undertaking.

Applications to subscribe to the above loan may be sent to either of the brokers, or to the secretary of the company, 18, New Broad-street, E.C.

October 13, 1868. By order of the Board, W. ROSCOE, Secretary.

Applications may be made, on ordinary paper, in the following form:—

To the Directors of the Mexican Railway Company (Limited).

GENTLEMEN.—I desire to subscribe for a sum not exceeding £ of the Mexican Railway Loan, on the terms, and according to the prospectus, dated 13th October, 1868, and I have paid £5 per cent. deposit thereon to the company's bankers.

Name .....
Address .....

Should a less proportion than the amount applied for be allotted, the excess of deposit will go in diminution of the next payment.

THE MEXICAN RAILWAY COMPANY (LIMITED).

ISSUE of £560,000 EIGHT PER CENT. FIRST MORTGAGE BONDS.

The LIST of APPLICATIONS from the public in London for portions of the above loan will be CLOSED at the bankers, on MONDAY next, the 26th inst., at Four P.M., and on the 27th inst., at Noon, for applications sent by post.

18, New Broad-street, E.C., Oct. 21, 1868. W. ROSCOE, Secretary.

THE LA LUZ SILVER MINING COMPANY (LIMITED).

Registered under the Companies Acts, 1862 and 1867.

Capital £50,000, in 20,000 shares of £2 10s. each.

5s. per share to be paid on application, and 5s. upon allotment.

No call to exceed 10s. per share, or to be made at intervals of less than three months.

Holders of fully paid-up shares will have the option of taking share-warrants to bearer.

N.B.—If no allotment is made, the deposit will be returned without deduction.

DIRECTORS.
W. L. BANKS, Esq., Pont-y-Wal Hall Brecon, Chairman of the Hereford, Hay, and Brecon Railway.
HENRY HART, Esq., Erith Villas, Erith.
THOMAS KEY, Esq., Director of the Société Financière d'Egypte.
J. WATSON KNIGHT, Esq., 1, Royal Exchange-buildings.
CHARLES MORRIS, Esq., 45, South-street, Grosvenor-square, Director of the United Mexican Mining Company.
CHARLES RULE, Esq., Director of the El Chico Silver Mining and Reduction Company.
JOHN POTTS, Esq., of the City of Mexico.

BANKERS.
THE CONSOLIDATED BANK (LIMITED), Threadneedle-street, London.

SOLICITORS.
Messrs. SUTTON AND OMMANNEY, 80, Coleman-street, E.C.

BROKER.
JOHN INCHBALD, Esq., 2, Copthall Court, Throgmorton-street, E.C.

AUDITORS.
Messrs. BIRD AND LEWIS, 1, Gresham-buildings, Basinghall-street.

SECRETARY (*pro tem.*)
Mr. ERWIN HOWELL.

TEMPORARY OFFICES,—174, GRESHAM HOUSE, E.C.

This silver mine is situated near the City of Cadereita, in the State of Queretaro, and about 130 miles north-west of the City of Mexico, presenting a rare opportunity for the investment of a moderate capital.

The directors are receiving applications for shares in this company, which it is confidently believed offers unusually promising prospects of success.

The following is an extract from the latest advices, dated August 29.

"In widening the entrance to the workings of the mine, the vein has been found to be about 30 feet wide, and is producing a large quantity of silver ore, containing about 240 ozs., equal to £50 per ton.

Prospectuses, with forms of application and full reports, may be obtained of the secretary or the broker of the company.

Offices, 174, Gresham House, London, E.C.

THE SOUTH AFRICAN GOLD FIELDS EXPLORATION COMPANY (LIMITED).

The PROSPECTUSES of the above Company, and FORMS of APPLICATION for SHARES, can be obtained at the Offices of the Company, 41, Threadneedle-street, E.C. By Order.

10th October, 1868. R. J. JEWELL, Secretary (pro tem).

Mr. THOMAS NICHOLLS, of the Tavistock Iron Works, has been elected portreve of Tavistock, the third time he has filled that important office, being the returning officer in the forthcoming election: the worthy portreve has always been a staunch supporter on the Liberal side.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the NEW TRELAWNY SILVER-LEAD MINING COMPANY (LIMITED).—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 17th day of October instant, presented to the Vice-Warden of the Stannaries by Edward Helson Dingle, a creditor and also a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, Truro, within the Stannaries, on Wednesday, the 11th day of November next, at Twelve o'clock at noon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitor, or his agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same from the petitioner, his solicitor, or his agents, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 6th day of November next, and notice thereof must at the same time be given to the petitioner, his solicitor, or his agents.

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall
(Agents for Rd. Peter, Launceston, Petitioner's Solicitor).

Dated Truro, October 22d, 1868.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the NORTH DOLCOATH MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Thursday, the 29th day of October instant, at Eleven of the clock in the forenoon, at North Dolcoath Mine, in the parish of Camborne, within the said Stannaries, the undermentioned

MINING MACHINERY and MATERIALS, viz.:—

Fifteen 9 ft. 11 in. pumps; 1 11 in. ditto; 10 9 ft. 5 in. ditto; 1 10 in. pole, stuffing box and gland; horse whim; horse whim kibble; 13 fms. 1½ in. iron bucket rods; a quantity of old iron, and a variety of other articles and effects in general use in mines.

To inspect the above materials, application to be made to Mr. JOHN COCK, in charge thereof, at the mine.

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.

Dated Registrar's Office, Truro, October 21st, 1868.

WEDNESDAY, 28th of OCTOBER, at One o'clock in the afternoon, at

SOUTH CHIVERTON MINE,
FOUR MILES NORTH OF TRURO.

MR. BURGESS is instructed to SELL, BY AUCTION, the ENTIRE PLANT (in One Lot), with DRESSED LEAD and the UNEXPIRED LEASE of the said mine (1-18th dues), comprising—

A superior 60 in. ENGINE, 10 ft. stroke, equal beam, with TWO BOILERS, 10 tons each; 35 fms. of 13 in. main rods, plates and bolts to match; 68 fms. of 15 and 16 in. pitwork; capstan, shears, and 90 fms. of 11-16 in. chain; horse-whim, skips, and kibbles; 6 ton weighbridge; bucket rods, smiths' and miners' tools; account house furniture; also, about 10 tons of dressed lead.

For viewing the same, apply to Captain NANCARROW, on the mine; or the auctioneer, Barncoose, Redruth, Cornwall.

MINING LEASES AND PLANT FOR SALE.

DEVON AND CORNWALL UNITED MINES,
NEW QUAY, NEAR TAVISTOCK.

MESSRS. WARE AND SON are instructed by the Directors of the DEVON AND CORNWALL UNITED MINING COMPANY to SELL, BY PUBLIC AUCTION, at the Bedford Hotel, Tavistock, on Friday, the 30th day of October, 1868, at Two o'clock, subject to such conditions as shall be then and there produced, in One Lot, the SETTS or GRANTS of the said company, and the whole of the valuable MACHINERY, PITWORK, and MATERIALS on the mines, comprising—

ONE 20 in. cylinder WHIM ENGINE, 7 ton BOILER, with hauling gear attached, complete.

ONE 12 in. portable ENGINE, with hauling gear attached.

ONE WATER WHEEL, 40 ft. diameter, 4 ft. breast, oak axle, cast-iron rings, with crusher and hauling machine attached.

ONE WATER WHEEL, 45 ft. diameter, 5 ft. breast, iron axle and rings, with hauling machine attached.

ONE WATER WHEEL, 27 ft. diameter, 8 ft. breast, iron axle and rings.

155 fathoms of 6, 7, and 8 in. pumps, 600 fms. of 2, 1¾, 1½ in. rods, 2 capstans, 2 shears, 6 balance bobs, account house and office furniture, and a great quantity of other materials and effects in general use in mines.

For further particulars, apply to Mr. GEORGE DOWN, stock and sharebroker, Cathedral-yard, Exeter; or to Capt. NEILL, on the mines.

TO RAILWAY CONTRACTORS, IRON MASTERS, COLLIERY PROPRIETORS, AND OTHERS.

MR. JOHN M. LEEDER WILL OFFER FOR SALE, BY PUBLIC AUCTION, in the yard belonging to the Cheltenham and Swansea Wagon Company (Limited), situate on SWANSEA BURROWS, between Briton Ferry and Swansea, on Monday, November 2, 1868, the following valuable

THREE ENGINES, TWENTY-SIX WAGONS, &c., viz.:

A new and powerful narrow gauge LOCOMOTIVE TANK ENGINE (named the Neath), 10 in. cylinder, 18 in. stroke, 36 in. wheels—has been recently taken to pieces, and undergone partial repair, having had new copper fire box and tubes, and is complete with the exception of some brass bearings. Built by Beynon, Peacock, and Co., Gorton Foundry, Manchester.

A powerful LOCOMOTIVE TANK ENGINE (called the Bulkley), 10 in. cylinder, 16 in. stroke, 42 in. wheels, with copper fire box and brass tubes, complete. Built by Neilson, of Glasgow.

A new and very powerful narrow gauge double tank and funnel LOCOMOTIVE STEAM ENGINE (Progress), 8 wheels coupled in sets of four, diameter of cylinders 15 in., length of stroke 22 in., diameter of wheels 4'6, 388 tubes, diameter of ditto 1⅞, two boilers (with fire-box in the centre), 4 ft. diameter, 9-6, and copper fire-box. Built by Cross, of St. Helen's. This engine is only three years old, and cost when new £4500. For heavy goods traffic it is considered one of the best engines in use.

TWENTY open narrow gauge TRUCKS, with brakes; will open at sides and one end. Also, SIX covered LIME TRUCKS. Most of the trucks are in thorough working order.

After the above there will be offered,

TEN broad gauge BOX WAGONS, to carry 10 tons, with double brakes and buffers (complete), three years old, and in good working order.

Sale to commence at TWELVE o'clock at Noon.

Auctioneer's Offices, Commercial Sale Rooms, 16, Caer-street, Swansea.

MERIONETHSHIRE.

SALE OF VALUABLE MACHINERY AND MINING MATERIALS.

MR. LEWIS WILLIAMS has been instructed by the Official Liquidators to SELL, BY AUCTION, on Wednesday, the 4th day of November, 1868, and the following day (if necessary), at the

PRINCE OF WALES GOLD AND SILVER-LEAD MINE,

in the parish of LLANELLTYD, near DOLGELLY, comprising—a capital high-pressure STEAM ENGINE, 14 in. cylinder; BOILER, 17 ft. by 5 ft.; two large WATER WHEELS; four small ditto; two Mosheimer's amalgamators, and gearing, complete; two Britten's pans; 16 barrel amalgamators and gearing; a battery of stamps (eight heads); cast and wrought iron turned shafts, circular saws, files, jigging machines, round buddles, classifiers, patent weighing machine and weights, screw plates, stocks and dies, miners' compass, iron ballast wagons, several tons of new and scrap iron, wooden sheds, lot of tram rails, iron house, launders, quantity of timber, ropes, pulleys, cisterns, wheel barrows, a good collection of miners' and smiths' tools, &c., &c.; also, about 7 tons of dressed lead ore, 20 tons of dressed blende, and 1 ton of dressed copper, samples of which may be had.

Most of the machinery, &c., is nearly new, and well worthy the attention of mine and slate proprietors and others, having only been recently erected.

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Tenders will be received till Twelve o'clock on Thursday, the 29th instant, when the highest satisfactory offer above the reserve price will be accepted.

A contract will have to be signed by the party whose tender may be accepted, and he will also be required to pay a deposit of 15 per cent. at the same time. The remainder in approved bills at short dates.

J. H. MURCHISON, Liquidator.

8 Austinfriars, London, E.C., 9th October, 1868.

In the Matter of the Companies Act, 1862, AND IN THE MATTER OF THE HENDRE LEAD MINING COMPANY (LIMITED).

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The property may be viewed by orders only, to be obtained of the Auctioneers, and particulars may be had on application to the captain of the mine, on the premises; and in London of T. H. LAMBERT, Esq., Solicitor to the Liquidators, 90, Lower Thames-street; and of J. and E. BADDELEY, Auctioneers and Surveyors, 26, Bishopsgate Within, City, E.C.

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October 12, 1868.

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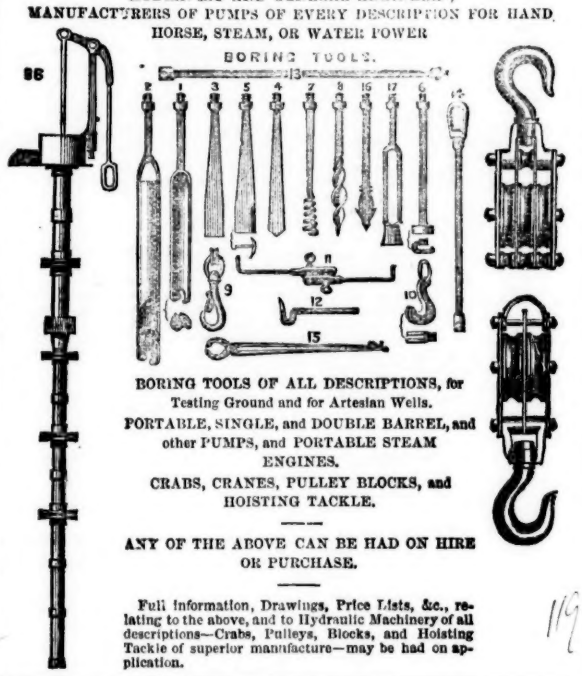
MANUFACTURERS OF PUMPS OF EVERY DESCRIPTION FOR HAND, HORSE, STEAM, OR WATER POWER



BORING TOOLS OF ALL DESCRIPTIONS, for Testing Ground and for Artesian Wells.
PORTABLE, SINGLE, and DOUBLE BARREL, and other PUMPS, and PORTABLE STEAM ENGINES.
CRABS, CRANES, PULLEY BLOCKS, and HOISTING TACKLE.
ANY OF THE ABOVE CAN BE HAD ON HIRE OR PURCHASE.
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CHAPEL STREET, LIVERPOOL,
MANUFACTURERS of FLAT and ROUND HEMP and IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.
MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER and THIRTY PER CENT. CHEAPER than Russian hemp rope.
WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.

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EMPOWERED by Special ACT of PARLIAMENT, 25th and 26th Vic., cap. 74.
Terminating annual premiums and sums assured payable during life.
PECULIAR ADVANTAGES OFFERED TO POLICY HOLDERS BY THIS SOCIETY.
The profits applied—first, in extinguishing the premiums AT A GIVEN DATE, and afterwards in making the policy PAYABLE DURING LIFE; this important advantage being secured without the payment of any additional premium.
ANDREW FRANCIS, Secretary.

HEATON'S PATENT.

THE LANGLEY MILL STEEL & IRONWORKS COMPANY (LIMITED),

LANGLEY MILL, NEAR NOTTINGHAM,

Are now making Cast-Steel suitable for Tools, Taps, Dies, Chisels, &c., &c., Shear Steel, and Iron of a very superior quality, by their direct process, under the superintendence of the Patentee.
The range of quality which this process secures renders the Steel and Iron suitable for almost every purpose to which these metals can be applied. Also, CAST-STEEL CASTINGS of all kinds from PATTERNS or DRAWINGS.

THE NEW PATENT DOUGLAS TURBINE WHEEL.

Messrs. G. H. LORD and Co. beg respectfully to call the attention of all parties interested in water power to their

NEW PATENT DOUGLAS TURBINE WHEEL,

The unrivalled success of which is now established beyond a doubt. These TURBINES are now working on falls from 18 inches to about 100 feet, and are found to give the highest percentage of power of any Water-wheel Turbine or Engine yet brought before the public, while from the simplicity of their construction they entail a proportionate decrease of amount of outlay, repair, &c.
All applications to be addressed to the sole proprietors and makers,—

G. H. LORD AND CO., IRON FOUNDERS AND ENGINEERS,

ALBION FOUNDRY, EAST STREET, or at their Offices, BASINGHALL STREET, LEEDS.

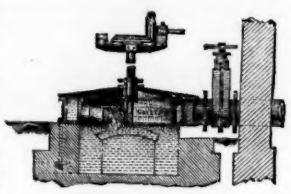
GWYNNE & CO.'S IMPROVED CHAIN-PUMP,
Worked direct by Steam-Engine.

These pumps work without valves or packing, and raise a considerable quantity of water. They will lift sand, mud, or grit without choking, and require only very inexpensive repairs.

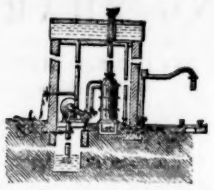
GWYNNE & CO.'S DOUBLE-ACTING PUMPING-ENGINE.
As supplied to the Admiralty Graving Docks, Malta, to lift from 200 to 2000 gallons per minute. The engine is of inverted vertical cylinder construction. The pump barrel and piston are of gun-metal, and the whole very strong and compact.

GWYNNE & CO.'S IMPROVED PLUNGER HAND PUMP.

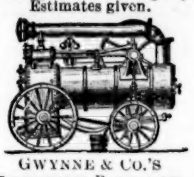
A very neat and extremely compact arrangement; will work for years without getting out of order. These pumps are peculiarly adapted for mines, for which great numbers have been supplied in situations where no other pump could be applied for want of space. They are equally adapted for use as feed-pumps, by driving them with strap from a rigger in place of the fly-wheel.



GWYNNE & CO.'S IMPROVED TURBINE WATER-WHEEL.
Compact, easy to erect, economical, simple, and perfectly adapted to all situations. Made of every power from 1 to 300 horse. These turbines are adapted for every class of work. Prices on receipt of particulars.

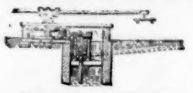


GWYNNE & CO.'S PATENT COMBINED STEAM-PUMP,
As Applied to Railway Stations.
The vertical boiler supplies the engine with steam, the pump discharging the water lifted from the well into the tank above, whence it may be drawn as occasion requires, for feeding locomotives, washing the carriages, as a fire-engine, &c.
Estimates given.

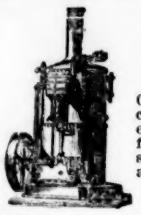


GWYNNE & CO.'S IMPROVED PORTABLE STEAM-ENGINE.
Light, simple in construction, durable, and economical, and very superior to "agricultural" engines. From 2½ to 30 horse power.

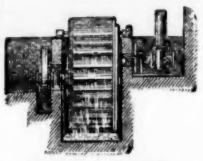
GWYNNE & CO.'S PATENTED WIND-POWER PUMPING MACHINERY.
Designed for Drainage and Irrigation Purposes
Suitable also for supplying the mansions of noblemen or gentlemen. Works continuously day and night without attention. Made from ½ to 20 horse power.



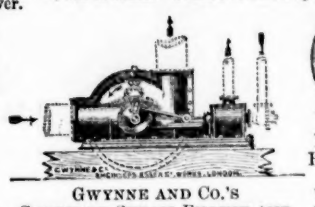
GWYNNE & CO.'S IMPROVED BULLOCK OR HORSE POWER PUMPING MACHINERY.
For situations where steam, water, or wind power are not available. Portable, easy to erect, and not liable to get out of order. From 1 to 6 horse power.



GWYNNE & CO.'S IMPROVED VERTICAL STEAM-ENGINE.
Occupies little space, compact, safe, and easy to work. Made from the very best selected materials. Of all powers from 2 to 20 horse.

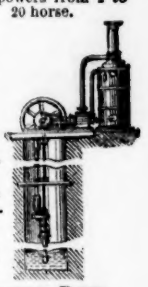


GWYNNE & CO.'S PATENT WATER POWER PUMPING MACHINERY.
Extremely useful wherever water-power is available. The centrifugal pump is worked by gear from the water-wheel. Suitable for supplying country mansions with water. No expense when once fitted. Made of all powers.



GWYNNE AND CO.'S COMBINED STEAM-ENGINE AND PATENT CENTRIFUGAL PUMP.
Small and powerful, low in cost, economical in work. No skilled labour required. Inexpensive foundations. First Prize Medal awarded at Paris last year for this arrangement.

GWYNNE & CO.'S IMPROVED HORIZONTAL HIGH-PRESSURE STEAM-ENGINE.
With or without expansion gear, for economical working. From 4 to 100 h. p.



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ELEVEN PRIZE MEDALS, taken at the Exhibitions of the Principal Cities of the World, TESTIFY TO THE GREAT EXCELLENCE OF THIS MACHINERY.

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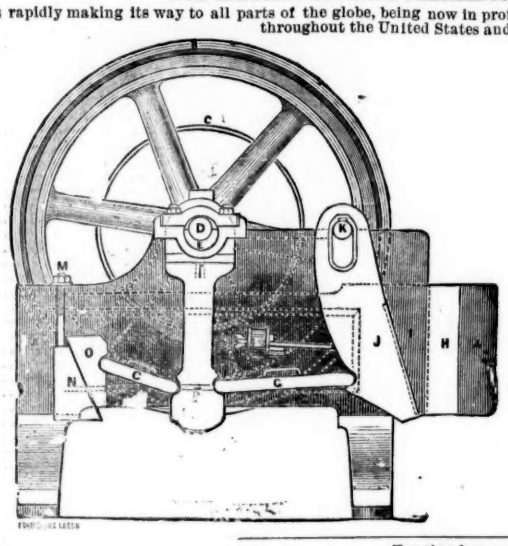
IMMENSE SAVING OF LABOUR.
TO MINERS, IRONMASTERS, MANUFACTURING CHEMISTS, RAILWAY COMPANIES, EMERY AND FLINT GRINDERS, McADAM ROAD MAKERS, &c., &c.

BLAKE'S PATENT STONE BREAKER,
OR ORE CRUSHING MACHINE,
FOR REDUCING TO SMALL FRAGMENTS ROCKS, ORES, AND MINERALS OF EVERY KIND.

It is rapidly making its way to all parts of the globe, being now in profitable use in California, Washoe, Lake Superior, Australia, Cuba, Chili, Brazil, and throughout the United States and England. Read extracts of testimonials:—



The Parys Mines Company, Parys Mines, near Bangor, June 6.—We have had one of your stone breakers in use during the last twelve months, and Captain Morcom reports most favourably as to its capabilities of crushing the materials to the required size, and its great economy in doing away with manual labour.
For the Parys Mining Company, JAMES WILLIAMS.
H. R. Marsden, Esq.

Ecton Emery Works, Manchester.—We have used Blake's patent stone breaker made by you, for the last 12 months, crushing emery, &c., and it has given every satisfaction. Some time after starting the machine a piece of the moveable jaw s about 20 lbs. weight, chilled cast-iron, broke off, and was crushed in the jaws of the machine to the size fixed for crushing the emery.
H. R. Marsden, Esq. — THOS. GOLDSWORTHY & SONS.

Alkali Works, near Wednesbury.—I at first thought the outlay too much for so simple an article, but now think it money well spent. WILLIAM HUNT.

Welsh Gold Mining Company, Dolgelly,—The stone breaker does its work admirably, crushing the hardest stones and quartz. WM. DANIEL.

Our 15 by 7 in. machine has broken 4 tons of hard whinstone in 20 minutes, for fine road metal, free from dust. Messrs. ORD and MADDISON,
Stone and Lime Merchants, Darlington.

Kirkless Hall, near Wigan.—Each of my machines breaks from 100 to 120 tons of limestone or ore per day (10 hours), at a saving of 4d. per ton.
JOHN LANCASTER.

Ovoca, Ireland.—My crusher does its work most satisfactorily. It will break 10 tons of the hardest copper ore stone per hour. WM. G. ROBERTS.

General Frémont's Mines, California.—The 15 by 7 in. machine effects a saving of the labour of about 30 men, or $75 per day. The high estimation in which we hold your invention is shown by the fact that Mr. Park has just ordered third machine for this estate. SILAS WILLIAMS.

For circulars and testimonials, apply to—

H. R. MARSDEN, SOHO FOUNDRY,
MEADOW LANE, LEEDS,
ONLY MAKER IN THE UNITED KINGDOM.

CAUTION!
BLAKE'S PATENT STONE BREAKER,
In Chancery.
BLAKE v. ARCHER, NOVEMBER 12, 1867.

His Honour the Vice-Chancellor WOOD having found a VERDICT in FAVOUR of the PLAINTIFFS in the above Cause, establishing the VALIDITY of BLAKE'S PATENT, and made a DECREE for an INJUNCTION to RESTRAIN the DEFENDANTS, Messrs. THOMAS ARCHER and SON, of Dunston Engine-Works, near Gateshead-on-Tyne, from INFRINGING such PATENT, and ordering them to pay to the Plaintiffs the costs of the Suit.

ALL PERSONS are hereby CAUTIONED against MANUFACTURING, SELLING, or USING any STONE BREAKERS similar to BLAKE'S, which have not been manufactured by the Plaintiffs. Application will forthwith be made to the Court of Chancery for INJUNCTIONS AGAINST ALL PERSONS who may be found INFRINGING BLAKE'S PATENT after this notice.

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H. R. MARSDEN, SOHO FOUNDRY, MEADOW LANE, LEEDS.

MUSHET'S TITANIC CAST STEEL
FOR
BORERS AND ROCK-DRILLING MACHINES.
SOLID CAST-STEEL HAMMERS AND SLEDGES.
MUSHET'S TITANIC STEEL FOR LATHE TOOLS, DRILLS, CHISELS, TAPS AND DIES, &c., &c.

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Where samples may be seen.

PATENT FLEXIBLE TUBING,
AND BRATTICE CLOTH FOR MINES
MANUFACTURED BY
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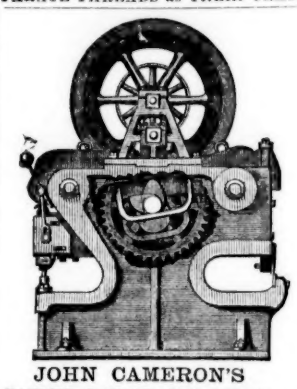
BICKFORD'S PATENT SAFETY FUSE

Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION" held in Paris, in 1855; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; and at the "UNIVERSAL EXPOSITION," in Paris, 1867.

BICKFORD, SMITH, AND CO., of TUCKINGMILL, CORNWALL, MANUFACTURERS of PATENT SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:—
EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH the COLUMN of GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM SUCH TWO SEPARATE THREADS as THEIR TRADE MARK.



JOHN CAMERON'S
PATENT DOUBLE CAM LEVER PUNCHING and SHEARING MACHINE,
1¼ × 1¼ in. × 24 in.=8 tons, £185.
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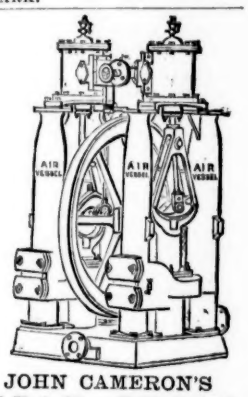

JOHN CAMERON'S
STEAM PUMPS
From 2 to 12 in. diameter,
SINGLE AND DOUBLE-ACTING
WORKS,
EGERTON STREET, HULME, MANCHESTER.

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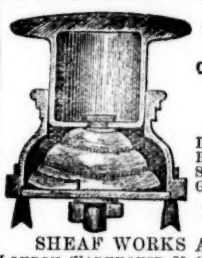
MANUFACTURERS OF
CAST STEEL for PUNCHES, TAPS, and DIES, TURNING TOOLS, CHISELS, &c.
CAST STEEL PISTON RODS, CRANK PINS, CONNECTING RODS, STRAIGHT and CRANK AXLES, SHAFTS and FORGINGS of EVERY DESCRIPTION.



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FILES MARKED T. TURTON EDGE TOOLS MARKED WM. GREAVES & SON
Locomotive Engine, Railway Carriage and Wagon Springs and Buffers.
SHEAF WORKS AND SPRING WORKS, SHEFFIELD.
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Where the largest stock of steel, files, tools, &c., may be selected from.

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No. 2, CROWN CHAMBERS, CROWN COURT, THREADNEEDLE STREET,
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Assays and analyses of every description of mineral and other substances manures, &c.
Gentlemen going abroad for mining purposes instructed in assaying, and the most improved methods of reducing gold, silver, and other metals.
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Published every Saturday, price 2d., or quarterly 2s. 2d.
Offices, 42, Grey-street, Newcastle-upon-Tyne; 50, Howard-street, North Shields; 195, High-street, Sunderland.

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See his recent work on Curative Electricity. By post thirteen stamps.
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LETTERS RECEIVE PROMPT ATTENTION.

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With innumerable illustrative cases in proof of the wondrous efficacy of the means employed.

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25 Royalton.
95 Anglo-Brazilian.

TAMAR VALLEY SILVER-LEAD.—The report of the agent, which appears in this days Journal, will fully substantiate our previous recommendations. We know of nothing at this time in the market so certain of a great rise in price.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER,
70 and 71, BISHOPSGATE STREET WITHIN, LONDON, E.C.,

Begs to remind his numerous friends of the near approach of the season which in mining matters is invariably marked by great activity. People will soon be returning from country excursions, and devoting that attention to business which throws life into every department. A good harvest, splendid weather, peace abroad and at home, will materially help forward that state of things at once so desirable and wished for. Mr. REYNOLDS therefore cautions the public against sacrificing stock of undoubted merit at the instigation of interested men. He strongly recommends firm holding of that which is good, and immediate abandonment of that which is worthless. There never was a period in his recollection when such a fine selection of investments could be make as at present. Mr. REYNOLD'S Circular for October will shortly be ready, and his views can there be gleaned, he hopes, to the satisfaction of the inexperienced, doubtful, and timid investors. It will be satisfactory, he trusts, to everybody to learn that the undermentioned "facts" have come to his knowledge during the week.

1.—The tin market has considerably improved, and likely to go very much better. This information is important to the holders of Great Wheal Vor, Wheal Kitty (St. Agnes), West Wheal Kitty, Drake Walls, Tincroft, and West St. Ives.

2.—That the position of WEST WHEAL KITTY is excellent, and that it bids fair to be a first-class investment, although the shares can be got in small lots at low prices.

3.—That at WEST ST. IVES, if any person who is a good judge will only go and look, he will find one of the most promising young mines that can be seen.

4.—That it would pay anybody to consider the present price of NORTH CROFTY shares and compare same with the value of the materials, and act accordingly.

5.—That it is evident that those who acted on my hint and bought WHEAL CHIVERTON shares at 15s., can now make a very handsome profit.

6.—That there has been no such favourable period for investing in mines during the past ten years as the present.

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T. B. and Co. are also dealers in every kind of mining shares, and having an extensive connection are generally able to deal in shares difficult of sale in the open market, and invite transactions from holders of this kind of stock.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
1500	Alderley Edge, c, Cheshire*	10 0 0	—		10 1 8	0 10 0	July 1868
200	Botallack, t, c, St. Just	91 5 0	150		488 15 0	5 0 0	May 1866
4000	Brookwood, c, Buckfastleigh	1 11 0	—		0 12 6	0 2 6	Aug. 1868
1000	Bronfloyd, l, Cardigan*	12 0 0	—		10 7 0	0 6 0	Oct. 1868
5094	Bwlch Consols, s-l, Cardigan	4 0 0	—		0 5 0	0 5 0	June 1868
6400	Cashwell, l, Cumberland*	2 10 0	—		0 3 0	0 1 6	Aug. 1868
916	Cargoll, s-l, Newlyn	15 5 7	—		14 15 0	0 10 0	July 1868
1280	Chanticleer, l,	0 7 8	—		0 0 6	0 0 6	Oct. 1865
2450	Cook's Kitchen, c, Illogan‡	19 14 9	12	11½ 12	1 12 0	0 5 0	Oct. 1868
509	Creegbrawse and Penkevil, t	—	—		2 5 0	1 5 0	April 1868
867	Cwm Erfin, l, Cardiganshire*	7 10 0	—		29 3 0	0 15 0	Oct. 1868
128	Cwmystwith, l, Cardiganshire	60 0 0	—		383 10 0	2 0 0	Aug. 1868
280	Derwent Mines, s-l, Durham	300 0 0	—		177 0 0	2 10 0	July 1868
1024	Devon Gt. Consols, c, Tavistock†	1 0 0	380	350 380	1115 0 0	6 0 0	Sept. 1868
656	Ding Dong, t, Gulval‡	49 14 6	—		0 10 0	0 10 0	Sept. 1867
358	Dolcoath, c, t, Camborne	128 17 6	210	200 210	857 10 0	5 0 0	Oct. 1868
6144	East Caradon, c, St. Cleer†	2 14 6	4½	4¼ 5	14 11 6	0 2 0	July 1867
300	East Darren, l, Cardiganshire	32 0 0	—		160 10 0	2 0 0	July 1868
128	East Pool, t, c, Pool, Illogan	24 5 0	—		412 10 0	7 10 0	Sept. 1868
1906	East Wheal Lovell, t, Wendron	3 9 0	8	7½ 8½	4 1 6	0 10 0	May 1868
2800	Foxdale, l, Isle of Man*	25 0 0	—		72 0 0	0 10 0	Sept. 1868
5000	Frank Mills, l, Christow	3 18 6	3	3½ 4	3 5 6	0 5 0	Feb. 1866
3950	Gawton, c, Tavistock	3 10 6	—	1¼ 1⅜	0 3 0	0 3 0	Jan. 1868
15000	Great Laxey, l, Isle of Man*	4 0 0	18¼	19 20	9 5 0	0 10 0	Sept. 1868
5908	Great Wheal Vor, t, c, Helston†	40 0 0	12	12½ 13	13 11 0	0 7 6	Sept. 1868
1024	Herodsfoot, l, near Liskeard†	8 10 0	43	42½ 45	46 10 0	1 10 0	June 1868
6000	Hingston Down, c, Calstock†	5 10 6	—		0 10 0	0 5 0	April 1866
165	Levant, c, t, St. Just	10 8 1	—		1095 0 0	2 0 0	July 1868
400	Lisburne, l, Cardiganshire	18 15 0	—		509 0 0	3 0 0	July 1868
3000	Maes-y-Safn, l, Flint*	20 0 0	—		4 0 0	0 5 0	Oct. 1868
9000	Marke Valley, c, Caradon	4 10 6	8⅝	8½ 9	4 14 0	0 5 0	Oct. 1868
3000	Minera Boundary, l, Wrexham*	1 0 0	—		0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. l, Wrexham*	25 0 0	175	150 175	239 13 0	6 0 0	Aug. 1868
20000	Mining Co. of Ireland, c, l, cl	7 0 0	15¼		—	9 p.ct.	July 1868
40000	Mwyndy Iron Ore*†	3 5 0	—		0 8 6	0 2 0	Mar. 1868
200	Parys Mines, c, Anglesey*	50 0 0	—		162 10 0	2 10 0	Aug. 1868
12800	Prince of Wales, t, Calstock	0 12 6	2	1⅞ 2	0 7 6	0 1 0	Aug. 1868
1120	Providence, t, Uny Lelant†	10 6 7	25	25 27	85 12 6	0 10 0	Sept. 1868
512	South Caradon, c, St. Cleer†	1 5 0	350	330 350	597 10 0	5 0 0	Oct. 1868
6000	South Darren, l, Cardigan*	3 6 6	—		0 13 0	0 1 6	Aug. 1868
937	South Wh. Crofty, c, Illogan	24 10 10	—	12 13	1 0 0	0 10 0	Sept. 1868
496	So. Wh. Frances, c, Illog.†‡	18 18 9	18	16 18	374 13 6	1 0 0	Mar. 1868
508	Summer Hill, l, Mold	3 18 6	—		2 5 6	0 5 0	Feb. 1868
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	14	14¼ 15¼	19 16 0	0 5 0	Sept. 1868
2000	Trumpet Cons., t, Helston	11 10 0	—	13 15	13 0 0	0 10 0	June 1868
3000	W. Chiverton, l, Perranzabuloe†	10 0 0	62	61 62	29 7 6	2 0 0	Aug. 1868
5000	West Godolphin, t, c, Breage	0 1 0	—		0 2 0	0 2 0	Dec. 1867
400	W. Wheal Seton, c, Camborne†	47 10 0	165	160 165	610 0 0	5 0 0	Oct. 1868
512	Wheal Basset, c, Illogan†	5 2 6	65	65 70	632 10 0	1 0 0	June 1868
1024	Wheal Friendship, c, Tavistock	20 0 0	—		300 10 0	0 10 0	Nov. 1866
512	Wheal Jane, s-l, Kea	10 10 0	—		—	1 0 0	July 1868
4295	Wheal Kitty, t, St. Agnes	5 4 6	—	3	3 9 0	0 2 0	Aug. 1868
1024	Wheal Mary Ann, l, Menheniot†	8 0 0	18	17 18	66 0 0	0 17 6	Sept. 1868
80	Wheal Owles, t, St. Just‡	70 0 0	—		350 13 0	7 10 0	Feb. 1868
396	Wheal Seton, t, c, Camborne	58 10 0	50	47½ 52½	254 15 0	2 0 0	Feb. 1868
3000	Whitewell Lead, Clitheroe*	0 5 0	—		1 0 0	0 10 0	Dec. 1867
17000	Wicklow, c, t, Wicklow	2 10 0	12⅜	12 12½	49 1 0	0 5 0	Oct. 1868

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
35000	Alamillos, l, Spain*†	2 0 0	—		0 4 6	0 2 0	Sept. 1868
20000	Australian, c, South Australia†‡	7 7 6	—		0 1 6	0 0 6	Aug. 1868
15000	Cape Copper Mining*†	7 0 0	5¾		3 2 6	0 10 0	Feb. 1868
30000	Central American Association*†	1 10 0	—	1⅜ 1⅝	—	—	
76162	Don Pedro North del Rey*†‡	0 14 0	3⅜	3¼ 3¾	1 0 3	0 3 0	Sept. 1868
70000	English and Australian, c‡	2 10 0	—		—	0 1 0	Feb. 1868
25000	Fortuna, l, Spain*†	2 0 0	2	1½ 2	1 11 10	0 2 6	Sept. 1868
20000	Gen. Mining Assoc., Nova Scotia†	20 0 0	—		23 10 0	0 15 0	June 1867
10000	Gonnesa, l,*	5 0 0	—		10 per cent.		Aug. 1868
68000	Kapunda Mining Co., Austra†‡	1 0 0	—		0 1 4	0 0 6	May 1868
15000	Linares, t, Spain*†	3 0 0	3	2½ 3	11 15 0	0 3 4	Sept. 1868
50000	Panulcillo, c, Chili*†	3 0 0	—		10 per cent.		Yearly.
6000	Peel River Land and Mineral*†	100 0 0	—		—	—	
10000	Pontgibaud, s-l, France†	20 0 0	—		5 6 2	0 11 11	May 1868
100000	Port Phillip, g, Clunes†	1 0 0	1⅝	1½ 1¾	1 3 0	0 1 0	Oct. 1868
120000	Scottish Australian Min. Co.†	1 0 0	—		8 per cent.		May 1868
11000	St. John del Rey, Brazil*†	15 0 0	18¼	17 18	81 10 0	4 5 0	Dec. 1867
13500	Vancouver Coal Mining*†‡	6 0 0	9¼	9 9½	1 10 6	0 6 0	May 1868
50000	Victoria (London) [25000 £1 pd., 25000 12s. 6d. pd.]				0 9 7	0 0 7	July 1868
40000	West Canada Mining Co.*	1 0 0	—		0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
50000	Anglo-Argentine, s, Argentine Republic*	1 0 0	—		
100000	Anglo-Brazilian, g*†	0 10 0	⅜	⅜ ½	Nov. 1866
12500	Anglo-Italian, g*†	0 10 0	¾	½ ¾	Jan. 1868
20000	Australian United, g	1 0 0	—		Mar. 1868
2464	Burra Burra, c, South Australia‡	5 0 0	—		
20000	Capula, s, Mexico*†	1 17 6	—		May 1868
30000	Chontales, g, s, Nicaragua*†	5 0 0	2⅞	2⅝ 2⅞	Mar. 1868
12000	Cobre Copper Company, c, Cuba†‡*	45 10 0	—		Jan. 1868
10000	Copiapo Mining Company, Chili†‡	16 10 0	—		
10000	Copiapo Smelting, Chili*	10 0 0	—		April 1866
300	Copper Miners' Co. of South Australia* [150 £100 pd., 150 £70 pd.]				Nov. 1866
15000	El Chico Silver Mining and Reduction Company*	5 0 0	—		Nov. 1866
40000	Fortune Copper Mining Co. of Western Australia	2 0 0	—		Fully pd.
50000	Frontino and Bolivia, g, New Granada*†	1 17 6	¾	14s. 16s.	May 1868
10000	Great Barrier Land, Mining, &c., New Zealand	5 0 0	—		Fully pd.
80000	Great Northern, c, South Australia†	1 11 6	—		Sept. 1862
50000	Javali, g, Nicaragua	1 0 0	—		June 1868
7927	Lusitanian (Portugal)†‡	2 15 0	—		Dec. 1866
83640	Mariquita, g, s, New Granada	1 0 0	—		Feb. 1868
12500	Nerbudda Coal and Iron, India*†	6 0 0	—	3½ 4	Dec. 1867
51000	New Quebrada, c, Venezuela*†	4 4 0	—		
15000	Otea, c, New Zealand*	2 0 0	—		Fully pd.
80000	Pestarena United, g, Italy*†	2 17 6	—	1¼ 1¾	
10178	Rhenish Consolidated, l [6000 £5 pd., 4178 £2 10s. pd.]	—	—		May 1866
100000	Rossa Grande, g, Brazil*†	0 14 0	1⅜	1¼ 1⅜	June 1867
15000	San Pedro del Monte, s, Mexico*	4 0 0	—		Sept. 1866
10000	San Roque, l, Spain	5 0 0	—		Fully pd.
10000	Sao Vicente, Brazil*†	1 0 0	¾	½ ¾	Oct. 1868
100000	Taquaril, g, Brazil*	0 7 6	—		Oct. 1868
6000	Terreseu, s-l, Isle of Sardinia	2 0 0	—		
43174	United Mexican, s, Mexico†‡*	28 5 2	2⅛	1⅞ 2⅛	May 1868
30000	Val Antigoria, g, Italy*	1 2 6	—		
6000	Val Sassam, s, c, l, Italy*†	8 0 0	—		Aug. 1868
45000	Victor Emanuel, c, Italy*	1 0 0	—		Fully pd.
20000	Washoe, g, Nevada†	5 0 0	—		Fully pd.
80000	Worthing, c, South Australia*†	1 0 0	⅝		Fully pd.
75000	Yorke Peninsula, South Australia	1 0 0	—		Fully pd.
45000	Yudanamutana, c, South Australia*†‡	3 0 0	2¼	1⅞ 2⅛	Fully pd.

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
12000	Brynpostig, Montgomery, l*	1 0 0	3	2½ 3	
1000	Carn Brea, c, t, Illogan‡	30 0 0	—	17½ 20	June 1868
3000	Chiverton, l, Perranzabuloe	10 15 0	6	4⅛ 4⅜	Aug. 1868
3000	Chiverton Moor, l, Perranzabuloe	6 8 6	6⅝	6½ 7	Aug. 1867
2880	Clifford Amalgamated, c, Gwennap‡	40 17 6	—		Oct. 1868
12800	Drake Walls, t, Calstock‡	2 5 0	½	17s. 19s.	Dec. 1866
512	East Basset, c, Redruth†‡	35 15 0	9		July 1868
6000	East Carn Brea, c, Redruth‡	4 0 0	⅜	⅜ ½	June 1868
6000	East Grenville, c, Camborne	4 0 6	3⅝	3⅞ 4⅛	Aug. 1868
4000	East Wheal Russell, c, Tavistock†	13 13 6	—		Oct. 1868
6144	Gonamena, c, St. Cleer	7 11 3	—		Oct. 1868
5000	Great North Downs, c, Redruth	6 13 0	2¼	2 2⅛	Feb. 1867
4800	Great Retallack, s-l, b, Perranzabuloe	2 16 6	3	2⅞ 3⅛	July 1868
5143	Great South Tolgus, c, Redruth	1 8 0	—		April 1868
1798	Great Wheal Fortune, t, Breage	31 7 4	—		Mar. 1868
400	New Wheal Seton, c, Camborne	60 10 0	—		April 1868
3457	North Downs, c, Redruth	5 8 10	—		Jan. 1868
695	North Roskear, c, Camborne	60 9 0	—	11 12	Sept. 1868
5936	North Treskerby, c, St. Agnes	1 9 0	⅜	⅜ ½	Dec. 1860
3000	North Wheal Chiverton, l, Perranzabuloe	4 0 0	—		Mar. 1867
1024	Rose and Chiverton United, l, Newlyn	6 0 0	—		Aug. 1868
6138	South Condurrow, t, c, Camborne	4 8 6	—	¾ 1	Oct. 1868
940	St. Ives Consols, t, St. Ives‡	10 15 0	7		Nov. 1867
920	Stray Park, c, t, Camborne†‡	45 5 8	1⅜	1⅛ 1¾	April 1868
548	Trelyon Consols, t, St. Ives	16 0 0	—		Dec. 1866
6000	West Basset, c, Illogan†‡	2 0 0	—	¾ 1	May 1868
1024	West Caradon, c, St. Cleer‡‡	23 0 0	2¾	4 5	July 1868
12800	West Drake Walls, c, Calstock	0 5 0	10s.	9s. 10s.	Feb. 1868
2582	West Great Work, t, Breage	5 11 0	2	2⅛ 3	June 1866
6000	West St. Ives, t, c, St. Ives	0 2 6	9s.	7s. 9s.	May 1868
512	West Wheal Frances, t, Illogan	106 15 0	31	30 32½	
5000	West Wheal Kitty, t, St. Agnes	3 2 0	—	3½ 4	April 1868
6000	Wheal Agar, c, Illogan	7 13 0	—		Oct. 1868
512	Wheal Buller, c, Redruth†‡	27 0 0	9	6 8	Aug. 1868
811	Wheal Emily Henrietta, c, Illogan	20 0 0	—	25 30	Jan. 1868
5724	Wheal Grenville, c, Camborne†	10 8 0	1¾	1⅝ 1¾	Sept. 1868
1040	Wheal Trelawny, s-l, Liskeard†	8 17 0	—	8 9	Sept. 1868
5000	Wheal Uny, t, c, Redruth	10 14 6	—	3 3½	Oct. 1867

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.
4000	Ballacorkish, I. of Man, l, c*	4 0 0	—	
4000	Bedford Consols, c, Tavistock	3 0 6	⅝	½ ⅝
4000	Bedford United, c, Tavist.*	2 13 8	1⅝	1⅞ 2⅛
1248	Boscaswell, t, c, St. Just	7 6 0	—	
5000	Bottle Hill, t, Plympton	1 14 6	—	
5000	Bryn Gwiog, l, Flint	0 18 0	—	
1200	Bryn Gwyn, l, Mold*‡	9 0 0	—	
7500	Brynystwith, l*	0 10 0	—	
1000	Budnick Consols, c	2 5 0	1¼	1 1¼
6000	Bwadrain Cons., s-l, Cardig.	3 2 0	—	
30000	Caldbeck Fells, l, Cumberld.*	1 15 0	—	11s. 12s.
1000	Camborne Consols, c	18 10 0	—	
11000	Cape Cornwall, t, c* [8000 £2 10s. pd., 3000 25s. pd.]			
5000	Capel Banhaglog, l, Mont.	1 10 0	—	
914	Caradon Consols, c, St. Cleer	32 13 6	—	
1000	Cardynham China-clay*	3 0 0	—	
6000	Carn Camborne, c, Cambrn.	2 9 0	⅝	⅜ ⅝
2000	Carnmarth Granite Co.*	—	—	
20000	Carysfort [3200 £2½ pd., 16800 £1 ½ pd.]			
2500	Central Minera, l, Wrexham*	3 1 6	—	
16000	Central Snailbeach l*	1 0 0	—	
3000	Chiverton Valley, l, Perranz.	2 0 0	—	
2048	Colquite & Callington Un., c.	1 3 0	—	
256	Condurrow, c, t, Camborne‡	76 10 0	—	
50000	Connorree, c, sul, Wicklow*	1 0	—	
983	Copper Hill, c, Redruth‡	12 10 0	—	
1000	Cornwall Hematite Co.*	5 0 0	7	6¼ 7
1055	Craddock Moor, c, St. Cleer‡	13 15 0	—	
12000	Crelake, c, Tavistock	3 12 0	—	
6000	Cuddra, t, St. Austell	5 10 0	—	
740	Eaglebrook, l, Talybont*	19 15 0	—	
1000	East Basset and Grylls, t	3 5 0	—	
6000	East Bottle Hill, t	0 12 0	—	
4000	East Chiverton, l, Perranz.	3 0 9	1¼	1 1¼
4000	E. Gunnislake & S. Bed. c	10 19 0	—	
6000	East Laxey, l, Isle of Man	3 0 0	—	
5000	E. Rosewarne, c, t, Gwinear	2 19 0	—	
6000	East Snaefell, l, I. of Man*	3 0 0	—	
5610	East Seton, c, Camborne	0 16 6	—	16s. 18s.
1190	E. Wh. Agar, c, St. Cleer	12 17 0	—	
6000	East Wheal Reeth, Lelant	—	1	
5000	E. Wh. Rose Con., l, Per.*	2 10 0	—	
6000	Ebury Lead Min. Co., Flint*	1 15 0	—	
6000	Fortescue Cons., c, Tavistock	0 12 6	—	
940	Fowey Con., c, Tywardreath‡	5 4 6	—	
1026	Garden, c, Morvah	6 15 3	—	
6000	Gen. Min. Co. for Ireland, c.	5 10 0	—	
10000	Glan Alun, l, Mold	0 12 0	12s.	12s. 13s.
40000	Glasgow Caradon c* [30000 £1 pd., 10000 15s. pd.]			
5700	Goginan, Cardigan, l	12 10 0	—	
6000	Gothic, s-l, Cardigan*	2 10 0	—	
486	Grambler & St. Aubyn, c†‡	74 0 0	—	
10000	Great Cwmsymlog, s-l*	1 15 0	—	
4096	Great Caradon, c, St. Ive	4 1 0	—	
5000	Great Mona, l, Isle of Man*	4 0 0	—	
12500	Gt. No. Laxey (Isle of Man)*	1 0 0	—	
6000	Great North Tolgus	1 0 0	—	
1000	Great N. Tolgus, c, Illogan	10 0 0	—	
15000	Great Rhosesmor, l	5 0 0	5	
6000	Gt. S. Chiverton, s-l, Perranz	1 18 6	1⅝	1¾ 2
3313	Gt. Wh. Baddern, t, Devoran	7 17 6	—	
119	Great Work, t, Germoe	100 0 0	—	
10240	Gunnislake (Clitters'), t, c.	4 19 0	—	
6068	Gwydyr Park, l, Llanrwst	1 11 0	—	
6400	Harwood, l, Durham*	0 7 6	—	
2500	Laxey Neath Smelting Co.*	3 10 0	—	
1019	Leeds and St. Aubyn, t, c	19 13 4	—	
5120	Lovell Consols, Wendron, t.	0 6 0	¾	⅝ ¾
6000	Maudlin, c, Lostwithiel	4 7 0	—	
6000	Mid-Wales, s-l,*	2 10 0	—	
4662	Minera U., l* [2500 £4 p., 2162 £2 p.]		—	
1000	Montgomeryshire, l, b*	3 0 0	—	
640	Mount Pleasant, l, Mold	4 0 0	—	
1024	Nangiles, t, c, Kea	30 12 0	—	
12800	Nether Hearth* [6400 £1 pd., 6400 2s. pd.]			
6000	New Birch Tor & Vitifer, t‡	1 13 6	—	
1500	New Chiverton, l, Perranz.	0 17 0	—	
6000	New Clifford, c, Gwennap*	2 15 0	—	
24000	New Cornish [12000 £1 pd., 12000 15s. pd.]			
6400	N. Crow Hill, l, St. Stephen.	3 6 6	—	
6514	New E. Russell, c, Tavistock	0 12 6	—	
20000	New Gt. Cons., c, Tavistock*	0 17 6	—	
3000	New Huntingdon, t, Devon.	0 1 0	—	
6400	New Pembroke, St. Blaz. t, c	1 12 0	—	
3680	New Treleigh, c, Redruth	—	—	
667	New Trevenen, t, Wendron.	12 1 6	—	
6000	New Westminster, l	5 10 0	—	
4096	New Wh. Lovell, t, Wendron	1 19 6	—	⅞ 1
2000	N. Wh. Towan, c, t, Wendron	1 10 0	—	
5000	No. Dolcoath, c, Camborne	4 3 0	—	
1361	No. Grambler, c, Redruth	9 3 9	—	
6000	North Jane, t, s-l, Kenwyn	3 3 0	⅜	¼ ⅜
2000	North Levant, t, c, St. Just	10 12 0	11	10 11
4000	No. Phœnix, c, Linkinhorne	4 11 0	—	
3240	North Pool, c, Illogan	6 3 6	—	
1024	No. Retallack, c, Perrazabuloe	2 0 0	3¼	3 3¼
1935	No. Shepherds, l, Newlyn*	6 10 0	—	
6000	North Wheal Basset, c, t†	5 0 0	—	
5610	N. Wh. Crofty, c, Illogan†	3 11 3	1¼	1⅜ 1⅝
6144	N.W. Robert, c, Smp. Spiney	4 8 11	—	
12288	Okel Tor, c, Calstock	2 7 4	—	
8000	Old Gunnislake, c, Calstock	3 9 6	—	
6400	Par Consols, c, St. Blazey†‡	2 14 6	—	
8465	Pedn-an-drea, t, Redruth	6 8 6	—	
5000	Pendeen Consols, c, St. Just	7 1 0	—	
4000	Penhale United, s-l, Perran.*	2 15 0	—	
2177	Penhale Wh. Vor, t, c, Breage	6 2 6	—	
5000	Penhalls, t, St. Agnes	3 0 0	—	3½ 3¾
1772	Polberro, t, St. Agnes	15 0 0	—	
6000	Prosper U., t, c, St. Hilary	9 4 0	—	
12000	Redmoor, c, t, Callington	1 17 6	¼	2s. 4s.
6000	Reinnie Laxey, l, I. of Man*	4 10 0	—	
3000	Rhydtalog, s-l, Cardigan	0 5 0	—	
6000	Roaring Water, c*	2 15 0	—	
2000	Rosecliff and Tolcarne, l*	9 15 0	—	
5915	Rosewall Hill & Ransom, c.	3 5 0	—	
10000	Royalton, t, St. Columb	1 1 0	1⅝	1½ 1⅝
20500	Snaefell, l, Isle of Man*	1 0 0	—	
12000	Sortridge Cons., c, Tavistk.†	2 5 6	—	
512	South Basset, c, Gwennap	30 10 0	—	
3000	So. Chiverton, s, l, Perranz.	6 2 6	—	
6000	S. Dolcoath & Carnarth. Con.	2 16 6	—	
3000	So. Fowey, c, Tywardreath	0 15 0	—	
3395	So. Herodsfoot, l, Liskeard	4 10 0	1⅛	⅞ 1
30210	South of Scotland, c*t	1 0 0	—	
2739	South Trevenna, c,	2 10 0	—	
6000	South Wheal Grenville, t, c.	1 5 6	—	
400	So. Wh. Seton, c, Camborne	83 13 0	—	
236	Spearne Consols, t, St. Just	4 4 4	—	
242	Spearne Moor, t, St. Just	6 2 0	—	
673	St. Ives Wh. Allen, t, St. Ives	18 18 7	—	
8771	St. Just Amalg., t,* [6000 £3 10s. pd., 2771 £2 5s. pd.			
300	Steeple Aston Iron Ore Co.	7 0 0	—	
7000	Stiperstones, l, Salop*	5 10 0	—	
6000	Tamar Valley, s-l, Beeralston	0 10 0	¾	⅝ ¾
3500	Tin Hill, t, St. Austell	1 12 0	—	
501	Tresavean and Trethurrup	16 11 0	—	
4096	Trewetha, s-l, Menheniot	10 19 6	—	
1943	Treworlis, t, Wendron	11 15 4	—	
4200	Vigra and Clogau, c, Dolg.*‡	5 10 0	—	
2500	West Briton, Crowan	1 2 6	—	
256	West Damsel, c, Gwennap	38 10 0	—	
1000	West Devon Cons., c, Tavistck.	—	—	
12000	W. Maria & Fortes., c, Lam.	3 13 0	—	
12800	West Prince of Wales, c	0 10 0	10s.	8s. 9s.
1000	West Rose Down, c, Linking.	22 0 0	—	
512	West Tolgus, c, Redruth	62 0 0	36	33 36
4096	W. Wh. Tremayne, St. Erth	0 10 0	—	
741	Wheal Basset and Grylls, t.	7 18 6	—	
6000	Wheal Crebor, c, Tavistock	2 7 6	—	9s. 11s.
4000	Wh. Emma, c, Buckfastleigh	3 19 0	—	
6000	Wheal Ida, s-l, St. Ive	1 6 6	—	
1024	Wh. Kitty, t, Uny Lelant†	3 10 6	—	
896	Wh. Margaret, t, Uny Le.‡	13 17 6	—	5 7
728	Wheal Margery, St. Ives, t, c	27 4 0	—	
6000	Wheal Mary Florence, c*	2 6 0	—	
1000	Wh. Mary Hutchins, c, Plymp.	2 0 6	—	
2000	Wheal Rose, c, Scorrier	0 10 0	—	
6000	Wheal St. Vincent, s	0 1 0	—	
1920	Wh. Trannack, c, Sithney	1 13 3	—	
1200	Wheal Trevenna, t, c*	10 0 0	—	

MISCELLANEOUS.

Shares.	Company.	Paid.	Last Pr.	Bus. done.
60000	Anglo-American Telegrh.*†	10 0 0	—	21⅛
10000	Arklow Chemical Works, l.	1 0 0	—	
Stock	Atlantic Telegraph	100 0 0	31½	
Stock	Ditto, 8 per cent.	100 0 0	80	80
80000	Ebbw Vale Iron Co.*†	27 0 0	—	14¾
148525	London Gen. Omnibus*†	4 0 0	—	

b, blende ; *cl* coal ; *c*, copper ; *g*, gold ; *l*, lead ; *s*, silver ; *sl*, slate ; *sl*, silver-lead ; *t*, tin ; *z*, zinc.

*** Companies marked thus * have been incorporated with Limited Liability ; those marked † have been admitted on the Stock Exchange, those marked thus ‡ have paid Dividends.

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